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8000 PLUS

8256 • 8512 • 9512

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PLUS

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- **LOCOFILE TUTORIAL:** Importing data from Masterfile
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- **WIN! WIN! WIN!** PCW mouse worth £55!

REVEALED! The new Amstrad PCWs



The wait is over - the PCW9256 and 9512 Plus have arrived! Turn to our extended news feature on page 5 for all the details

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The thought of upgrading from your Amstrad PCW to a fully fledged PC probably fills you with dread.

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Sophie Lankenau - Editor

Welcome to October's 8000 Plus! You are reading this at perhaps the most crucial period in the six year history of the PCW. Amstrad have just launched two new PCWs, and we're very pleased to be bringing you the very latest information on them. Our extended news feature below gives you all the details that you'll need for now, and we'll be looking more closely at the machines next month.

Meanwhile, there's plenty to excite and amaze in this month's

issue - chiefly, perhaps, the launch of KeyMouse by Creative Technology. This revolutionary new DTP add-on breaks new and exciting ground in the world of mice for the PCW, and you can find out just how this has been achieved if you turn to our feature on page 10!

We've had the 8000 Plus team sleeves rolled up once again this month in order to show you how to clean your keyboard. All you have to do is to follow our eight-step, fully illustrated guide, and a

cleaner, sharper keyboard performance will be yours for the taking. It couldn't be simpler!

Public Domain software has also earned the attention of 8000 Plus this month; we've taken a look at just how well PD programs can perform when compared to their more costly commercial counterparts. The results, as you will discover if you turn to page 29, have been very interesting..

It's definitely all go in October's 8000 Plus - so let's crack on with the issue!



REVEALED: THE NEW PCWS!

As predicted in last month's 8000 Plus, Amstrad have launched two new PCWs. One is an updated version of the existing 9512 (the PCW 9512 Plus), and the second, a new entry level 256 machine. Both machines went on display at the Business Computing Show in September.

And Amstrad have also breathed new life into the faithful old PCW by fitting both new models with 3.5 inch disc drives.

This brings the PCW (or the PCW as they are insisting on calling it) right into line with current thinking on disc sizes. All the main personal computers now use - or give - a three and a half disc as an option.

By using some relatively simple conversion software it will now be possible to save a file on to a PCW disc and load it immediately on to a PC or an Apple Mac.

This could be the breakthrough that Amstrad have been looking for to introduce PCWs into a business setting. If the discs can be made compatible, many of the old arguments about incompatibility between CP/M and MS-DOS become unimportant.

Big brother

For a while now, pundits have been predicting the demise of the PCW simply because it didn't use a standard size disc. Several years ago, the three inch disc had tried to rival its bigger brother as the disc of the future.

But now, with more than a million sales in the six years since it was introduced, the PCW looks firmly established in Amstrad's product list and, as such, has been deemed well worth the trouble and expense of a redesign.

The new drives will use the less expensive double density discs. These will hold 720k of data, the same as the present 9512 or 8000 series B: drive disc

but it will prove a significant improvement on the double-sided 173k discs which are used in the B256.

Entry level 9256

In a move to keep its grip on the 'inexpensive' end of the word processing market, Amstrad has updated the old entry-level 8256 - still claimed as the most popular entry-level word processor in the UK - into the smart-looking new PCW 9256. This is sure to look more at home in an office setting.

There are a number of cosmetic changes on the 9256. First of all, it is significantly smaller and neater than the 9512 (the nearest comparison in terms of style). It has a paper white 12 inch monitor and a new 'springy' keyboard - although one with a traditional layout of keys instead of the existing 9512 version with the keys situated on the left hand side.

The new machine still comes with the hard working 8000 series dot matrix printer, now presented in a newly-designed casing. This certainly makes it more presentable and the company claims that there are 'ergonomic' improvements in the design - even if it doesn't improve its performance significantly.

The 9256 has the smaller 256k m:drive and comes with LocoScript 1 (although Loco 2 is available). Unlike the 9512, there is still no in-built parallel printer port - you have to use an RS232 on the expansion slot.

At £410 (including VAT) - virtually the price of the original 8256 when it was brought out - Amstrad must be hoping to significantly boost their sales at this end of the computer market.

Bubble jet option

At the other end of the scale, Amstrad have decided to offer the option of a

bubble jet printer with the top of the range PCW 9512 Plus - giving laser quality output. Although this will put the cost of the machine up to £645, it is a very reasonable price to pay for extra quality. Amstrad will be providing the Canon BJ-10e printer with the casing colour especially co-ordinated to match the new machine. One minor problem could be that the BJ-10e is very much set up for use with IBM compatible machines and may need specially written printer drivers for some software. However, LocoScript 2 does have a printer driver for the BJ-10e and Locomotive have produced a new program - LocoFont BJ - to increase printing options.

There is still the option of buying a 9512 Plus with a daisywheel printer - again with a revamped appearance and no significant difference in performance. This package will sell at £527 (including VAT) and includes an automatic sheet feeder.

One other interesting change is that the new machines will both use version 1.11 of CP/M. Opinions vary as to how much difference this will make to running software; Amstrad maintain that it will have virtually no effect, while some programmers are concerned that older programs will need to be modified.

Main points

PCW 9256 - £410
3.5 inch drive
Smaller, neater design
Paper white screen
New keyboard
Revamped dot matrix printer

PCW 9512 - £527/£645
3.5 inch drive
Smaller, neater design
Revamped daisy wheel printer
Option of bubble jet printer

Very interesting....

One of two interesting details came to light when we received the pictures of the new PCWs. One is that the middle C of PCW has now been downgraded to a c. It will also be easy to distinguish a PCW 9256 from a PCW 9512 Plus because the 9256 has its disc drive on the right and the 9512 has its disc drive on the left. And perhaps most interesting of all, the 3.5 inch discs shown in the picture beside the PCW 9256 happen to be high density discs (able to hold 1.4 megabytes of data) even though the new machines will only handle double density discs holding 720k of data.

ADVANTAGE!

LOW COST PCW SOFTWARE

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FUN & GAMES

£5
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PCW DRAUGHTS

£5
A well-presented and challenging version of the popular board game, played against computer, features large, clearly presented board.

PIT YOUR WITS

£5
Put your wits against the computer with these popular games - Chess, Othello, Mastermind, Split, Rubik's Cube, Stone (Awari), Biorhythm Plotter, TicTacToe and Word Search Puzzle Maker.

VERBIAGE

£5
Similar to TV Quiz 'Countdown'. Make longest word you can from your chosen letters "VERB - CONSONANT" - the computer will do the same. The longest word wins! 'Amazing graphics' - PCW.

TRIVIA QUIZ

£5
A multi-choice game with plenty of fast-action graphics and sound, competitive scoring and a wide variety of questions. Fun for all ages. 'Guaranteed completely trivial' - 8000 Plus.

SLIDER

£5
Computer version of popular mechanical sliding squares puzzles. Pictures are divided up on a grid of squares, then mixed up; your task is to slide them around to re-assemble the pictures.

JUNIOR CHALLENGE

£5
An entertaining selection - Aerial Antics, Battleships, Burglar Bill, Car Park Blues, Fly Race, Biblical Hangman, Mastermind, Post Haste, Solitaire, Table Tester, Widget Factory

AMUSEMENTS AND DIVERSIONS £5
Starfire, Lunar Lander, Merchant, Trade, Boggle Baseball, 3D Noughts & Crosses, Chase, Quest, Horse Racing, Civil War, Baccarat, Crogs, Hunt The Wumpus, Swarms, Blackjack, Square, Crazy-8, Hangman, American Football, Queen, Spies, Nim, Hononyms, Dots, Dragrace, Pilot, Strobe.

COLOSSAL CAVE ADVENTURE £5
Featuring the famous game which originated on main frame computers, with save and re-load. Plus **BESTIARY**, 'A well-produced, novel adventure' - Bill Brock Adventurer's Guide.

PCW CHALLENGE £5
Four cult classics from Nemesis: The Trial of Arnold Blackwood, Arnold Goes To Somewhere Else, The Wise And Fool Of Arnold Blackwood, Brawn Free. 'A good challenge lots of hints and tips and good range of responses' - 8000 Plus.

LOGO LOGIC £5
Educational programs for DR-LOGO (supplied with your PCW). Plan your shortest route with ALL-LINER. Play ANAGRAMS and HANGMAN, DRAW with the LOGO turtle, write and print tunes with MUSIC printer and use the DISK LABEL PRINTER

FUN WITH GRAPHICS £5
PCW-DRAW Simple program to create, save, edit, print pictures. BIO-MORPH Start with a simple figure after a few generations you have a set of complex and unique creatures. Plus GRAPHIC ROUTINES including 45 character PCW screen.

SPECIAL INTEREST

EXPERT SYSTEM £5
Use your computer for decision making, and problem analysis. Build up a knowledge base on any subject then, by answering a series of questions, reach a logical conclusion.

COMMUNICATIONS TOOLBOX £5
Data transfer between computers (local/remote), Access to Viewdata, Prestel, Databases and Bulletin Boards. With Kermit, UKModem7, MEX and various communications utilities.

HI-HO FILE TRANSFER £5
Very straightforward menu-driven program for fast file transfer in and out of your PCW (needs serial interface and null modem cable).

WORD PROCESSING & DTP

WORD PROCESSOR

£5
A powerful WordStar-like editor which offers full screen editing, full block operations, windowing, automatic horizontal scroll (line length up to 255 characters), macro functions, word-wrap, formating, pagination, find/replace, undelete and more.

WP & PRINTER TOOLBOX

£5
Print Text (eg Spreadsheet) sideways on your printer, SORT a file into alphabetical order, WORD COUNTER for locoscript or ASCII, WSCLEAN, CALENDAR GENERATOR, SPELLING CHECKER, SCORING CARD, BANNER Printers, TYPEWRITER Emulator, SETPAPER, SETPRINT paper and printer control.

PRINTMASTER (dot matrix)

£5
Use your PCW and printer to good effect by designing and printing your own customised Letterheads, Stationery, Calendars and Greeting Cards. Also prints signs and banners.

PRINTMASTER TOOLBOX (2 disk set)

£10
Features a wide range of over 600 graphics for use with Printmaster plus GALLERY program to view graphics on-screen before printing.

LETAFONT (dot matrix)

£5
Change the letters and revitalise your PCW screen with this set of 16 new fonts. Works with most CP/M-based programs. Edit your own set of fonts and even print them out.

DATABASES & SPREADSHEETS

KEYBASE II

£5
UK Shareware database. File Manager, Report Generator, Editor/Browser Screen, Up to 32000 records, Rapid Search, Export to SuperCalc, Locoscript, or Protext, MailMerge, Calculator. Keybase is well designed simple to use and it works. A good value database. - 8000 Plus.

FILE INDEX

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Locomotive move to 3.5 inch discs

Locomotive Software have moved fast to prepare for the launch of the new PCWs. Their range of PCW products are now available on 3.5 inch disc, including LocoScript 1 and 2, LocoSpell, LocoMail and LocoFile.

Although the new PCW9256 comes with LocoScript 1, it will be able to support Loco2 and the printer support pack.

For users of the new Canon BJ-10e bubble jet printer - an option with the PCW 9512 Plus - the company have produced LocoScript BJ, a program that greatly increases the potential of the new printer.

The new package allows the whole LocoScript 2 character set to be used - Greek, Cyrillic and special scientific characters - on the Canon BJ 10e printer.

It also gives 12 extra typefaces, from a handwriting style to modern business faces. They include Capitals, Copper Plate, Definite, Finesse, Mini PS, Old English, Penman, Roman, Sans Serif, Script and Standard - all for around £35. The price includes VAT.

For more details, contact Locomotive Software, Dorking Business Park, Dorking, Surrey RH4 1YL, phone (0306) 740606.

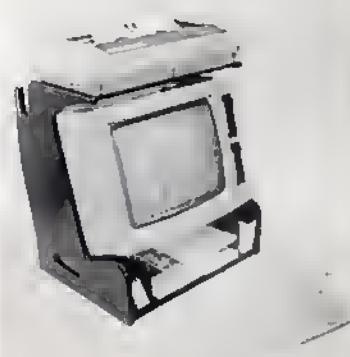
Pa-Ca-Way your 9512!

Following the success of the Pa-Ca-Way PCW stand for the 8000 series machines, the designers - Gnome Designs of Leeds - are now working on a stand for the 9512.

The stand, which holds the 8000 series monitor and printer, and provides space for storing discs and paper, has now been sold all over the world, with models going to Canada and Australia.

Work is now underway on big brother Pa-Ca-Way, capable of holding the bulky 9512 printer, and the designers are eagerly awaiting details of the new 9000 series machines so that they can get started on a design for them.

For details, contact Gnome Designs, Pebble Dene, Syke Lane, Leeds LS14 3BH - telephone (0937) 587171.



Gnome Designs are working on a 9512 version of the PCW Pac-a-Way

DIY ribbons

Any 8000 series owner who has looked on jealously while 9512 owners refurbished their multi-strike ribbon cassettes need worry no more.

Aladdin, who have been producing a 9512 DIY ribbon refurbishing system for some time, are now introducing a similar package for owners of the 8256 and 8512 series machines.

Multistrike film ribbon is a plastic film coated with carbonised black ink. While it would normally be dearer than a fabric ribbon, the makers claim that you can improve the quality of your printing at a fraction of the cost simply by faking on the job of replacing the film yourself. The process is very easy, and since there is no wet ink or spray involved, it will leave no mess behind - on fingers or work surface.

The PCW8000 DIY starter pack gives you two multi-strike film cassettes, three refills and instructions - all for £10.99. That, as the makers point out, is the equivalent of five cassettes at £2.20 each. After that refills cost £1.50 each plus 99p per order for postage and packaging.

For the real enthusiast, there is also a Jumbo Roll of half inch multistrike ribbon for £24.99 - reducing each refill to about 60p each, although the manufacturers point out that this will make the procedure slightly more complicated. For more details contact Aladdin, at 4 Hurkur Crescent, Exmouth, Devon TQ14 5AP.

Systems analyst

A set of systems running in LocoScript and using LocoMail and/or LocoFile has been launched by the Chris Pinnock Processing Bureau of Bristol.

The Invoices Suite, a simple LocoFile based invoicing system, and the Addresses Suite, a labelling system, are the first offerings. Chris Pinnock, the author, created the new systems for his own purposes and then decided that they could be useful to other PCW owners.

They use only standard LocoMail and LocoFile commands. However, both are set up with a brief manual and quick reference section, with the aim of getting the new user started with the minimum of effort.

In 'Invoices' you can update a sales data file in Edit mode. But you can produce a range of reports, invoices and reminder letters. 'Addresses' allows you to print labels up to three across, addresses can be split into sub-lists and there are templates for mail merging.

The Addresses Suite is priced at £19.99 and Invoices at £29.99. The pair can be bought together for £39.98 from Chris Pinnock Processing Bureau, 10 Bay Gardens, Eastville, Bristol BS5 6YB - telephone (0272) 514203.

Pinnock's future projects include expanding the Invoices system to full accounting function up to trial balance, a Payroll system, a 30-minute appointing diary, and a free format jotter.

Suite thing

Logi'stik UK are to market PCWWorks, a suite of office programs for the new PCWs. PCWWorks consists of a database, spreadsheet, word processor and MS DOS to CP/M file converter. It will sell at £49, a price which includes VAT.

PCWWorks is based on the Microcollection, first published in 1986. It will work with Rampacs, hard discs and the latest CP/M operating system.

The most up to date version of the PC to PCW file transfer program WYSIWYG is also now available from the company, as is the MicroDesign HD clip art package.

Logi'stik will also market add-ons for the new PCWs, including a Centronics interface (£39 + VAT) and a serial interface (£45 + VAT) including cables. These are both made by SCA Systems Ltd.

In addition, SCA has produced a 256k Rampac with a centronics (parallel) interface (£69 + VAT) - the PRO9256, in effect making a PCW9256 into a PCW9512 - and an adaptor to connect two add-ons to the PCW (£15 + VAT). Many existing add-ons can be used with the new machines using a short cable adaptor (or dongle, as it is better known). In line with these developments, Locomotive Software have revised the latest versions of CP/M and LocoScript 2 to detect the new low cost Centronics interface, which is regarded as a breakthrough in the design of PCW interfaces. More details from SCA Systems on (0903) 700288.

Secret address

Keen-eyed readers of our Artistic Impression review of the current state of clip art last month might have noticed right away that it wasn't there.

The vital information that was missing was, of course, the name and address of Tecnation - suppliers of the Getset Typeset collection of clip art images.

What we meant to say was Tecnation can be found 77 Marden Road, Bitterne, Southampton, tel: 0703 442591.

It's a bargain!



The latest in what Fujitsu call the 'low cost' end of the laser printer market...

Fujitsu Europe Ltd have launched a new eight page per minute A4 laser printer with seven bitmap fonts.

At a mere £1,425, it is aimed at the low cost end of the laser printer market. We'll be rushing out to the shops with all speed to buy two of the machines, just in case one breaks down - and we're sure not to forget to add on £50 for an RS232 if we want to use our new toy with an 8000 series PCW. If money (and desk space, by the look of it) are no objects for you, telephone Fujitsu Europe immediately for details on 081 573 4444.

Pro8256!

Attention, W.J Whitbread of Paston, Peterborough - it's time to celebrate! For lucky old WJ (interesting name that, isn't it?) is the winner of the SCA Systems' Pro8256 memory add-on offered in our August competition. WJ was one of a number of people who actually knew that the PCW8256 was so called because it had only 256k of memory, that the PCW 8512 was the next, that the first PCWs were called Joyces (no, not Veronicas) and that SCA Systems make the Rampac. Very impressive. The entire 8000 Plus editorial staff were stumped on at least three of them.

Hurry, hurry!

Are you ready to run away and join the 8000 Plus editorial team? We are looking for a Staff Writer to join us in our Bath office. If you read 8000 Plus you already should have many of the attributes needed. You should be a PCW owner with an interest in using the machine to its full potential. You should also be able to write clear, lively copy and have an absolute fixation about detail. If you have experience in producing a magazine, even better. If you are interested, send your CV to Sophie Lankenau, 8000 Plus, Future Publishing, 30 Monmouth Street, Bath BA1 2BW. But hurry! The race is on!

Philosoft move

Philosoft, who produce the file conversion software package Graflink 2, are moving from sunny Lancashire north of the border to Lewis, an island off the West coast of Scotland.

All enquiries should now be sent to Philosoft Software Engineering at 35 New Shawbost, Lewis PA86 9BBG. Their new telephone number is (0851) 71411. Also, keep your eyes open for a promised "major new software release", planned for the spring/summer of next year.

More music

Club 29 Computer Services, the company producing the Album System - a music cataloguing suite - certainly took note of the constructive criticism in a recent 8000 Plus review.

For the company is now claiming significant improvements on the few minus points mentioned in the evaluation, including more screen listing options and what they describe as a "dramatically improved program speed".

The new version now claims to be 250 per cent faster at switching between programs, and to have more powerful database searching facilities.

All reports can now be seen on the screen, and output to a printer. The program gives summary catalogue listings on screen and supports all types of PCW.

In addition, the database capacity on the 8256 has been increased by 170 entries, from 200 to 370.

The Album System retains its price of £15.59 including VAT and postage. For further details contact Club 29 Computer Services, 3 Arun Close, Winnersh, Berks RG11 5PG, telephone (0734) 774448.

Teach yourself computers

A new series of PCW training packages has been launched by a brand new company - Sword Computers of Bolton.

Described as "off the shelf training packages" the ZapLearn series of programs are designed to teach PCW owners how to use their machines by screen-based training.

Theory, practical examples, reviews and quizzes are used to take the learner through the process a stage at a time.

The first program in the series is ZapLearn Word Processing Basic, which teaches you to use LocoScript 1 and 2, creating, editing and printing documents. All this is expected to be achieved in a mere six hours of teaching time, when you should know (at least) the basics.

Coming soon are Word Processing Advanced, LocoFile, LocoMail (basic and advanced) and LocoScript PC.

For more details contact Sword Computers, 32 Kenwood Road, Barrow Bridge, Bolton, Lancs BL1 6NA, telephone (0204) 496294.

The ZX to PCW Adventure

Forgotten gems of text-based adventure games from the ZX Spectrum era are due to see the light of day again with the launch of Acorn Quest.

This is one of four games originally written on the ZX (yes, people really did use them once) now rewritten for the PCW in, what the author claims, is a greatly enhanced, faster and more complex form. It has, he claims "greater interaction and a more sophisticated language parser, supporting multiple command input". Sounds impressive.

Acorn Quest is now available from Andrew Hackett, 60 Margaret Grove, Harborne, Birmingham B17 9JL, telephone (021) 426 4535.

New charity PD disc available

The latest PCW File Software Interest Group Public Domain and Charityware catalogue disc is now available. One cannot help feeling that it must take half the disc just for the title!

As with previous issues it is only available in disc format but there is a new menu style format and you can print out details. There is also samples of PD programs on the B side accessed by a new PD menu system written by PCW File member David Aldred.

Following general publicity - and a special mention in 8000 Plus - the Charityware section is booming. The company has now collected more than £3,000. It will provide collections of software in return for donations to MEA - the body currently carrying out research into ME - the so-called "Yuppie's" disease.

For more details, contact software librarian Bob Ellis, 100 St Peters Close, Moreton-on-Lugg, Hereford HR4 8DW - telephone (0432) 761B60.

PCW mail order medic service

What is described as a "mail order medic" service for personal computers has been launched by Computer Services (Kent).

Their Computer Rescue service will collect your PCW from your home or office, repair and service it ("swiftly and diligently") and return it to you in no time. For more information, why not contact Malcolm Terry, Ian McKeen or Pauline Procter at Computer Services (Kent), Church Road Business Centre, Murston, Sittingbourne ME10 3RS - telephone (0793) 421731/2.

NEWS**SCOTCH CORNER**

We've had a communication from the East Lothian User Group. They tell us that they have a thriving membership, and meet on the first Tuesday of each month at T.D. Precision Engineering Ltd, Tyneside Works, Mill Wynd, HADDINGTON. Meeting time 7.30. There is no membership fee at present, and the meetings are aimed at providing opportunities for people to bring along their problems, as a well offering informal tuition and advice on a range of subjects.

If you are interested, either contact Dr Neil Simpson, at 7 Mungswells Cottages, North Berwick, East Lothian, EH39 5AT, telephone (08757) 701.

CARING SOCIETY

Another group we have recently heard from for the first time is the National M.E. PCW User Group - for sufferers of the debilitating Myalgic Encephalomyelitis disease, and for those who care for them. The club will offer the twin advantages of a PD and MD2 clip art library, a

scanning service and discounts on software and hardware; and, since it is run by a sufferer, the problems of club members will be addressed in a sympathetic manner.

If you want further details, either for yourself or for a friend, get in touch with Roger Blake, Home Cottage, Hill Road, Beacon Hill, Hindhead, Surrey GU26 6QW. His telephone number is 0428 606019.

REGULAR HAUNTS

Our regular clubs continue to flourish. The M25 Group have a meeting on October 21st, where they will be looking at LocoFile and LocoMail in a tutorial presented by Derek Becroft. And the South Essex PCW Club, who have recently held their first AGM, will be meeting again on October 3rd.

Keep your diaries clear for November 7th, too - that meeting promises to be very exciting indeed. If you live in the area, you won't want to miss it!

In the meantime, don't forget to tell us about your club's activities, at the normal address.

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- Simply plug into the expansion port.
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- Adds 512K of RAM. Instantly!
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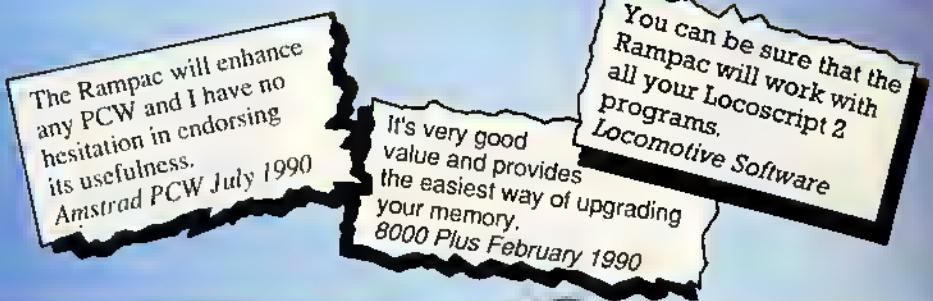
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- Will upgrade your PCW 8256 to a full 1 Mb.
- Only £109 + VAT.
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1.5Mb

- Three times the memory of basic Rampac for only twice the price!
- Allows Locoscript users to use the maximum 2Mb memory on 8512/9512 machines.
- Flipper 2 recommended for CP/M users.
- Only £189 + VAT.
Total £222.08 - postage free.

If you use Locoscript you should have a Rampac - but don't just take our word for it, see what the magazines say -



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- Full 8 bit Centronics parallel port for printers and plotters.
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**SCA Systems Ltd., 61 Ferringham Lane, Ferring,
Worthing, West Sussex BN12 5LW
Telephone 0903 700288 Fax 0903 506606**



See how they Run

Karen Donaghay takes a look at a brand new mouse from Creative Technology - and discovers some very important developments

Help at hand

Many companies have a highly altruistic approach towards their products. As soon as your cheque has cleared at the bank, they will try and shun all further contact, leaving any confused customers well and truly in the lurch. Not so with Creative Technology. They are one company who firmly believe in helping newcomers to find their feet. To back up KeyMouse they have set up a hot line, available on week days between 4pm and 7pm. This will offer help and advice with your mouse work, and the number to ring is (0889) 567160.

Mice price

KeyMouse will set you back a mere £54.95, which includes the upgrade price for MD2 and ProScan. Order yours from Creative Technology at 10 Park Street, Uttoxeter, Staffs ST14 7AG, or by telephone on the number shown in the above. Or, enter our KeyMouse competition on page 82 of this issue!

Imagine if Constable or Rembrandt had paint brushes that could only move in straight lines. How different the Haywain or the Night Watch would look, if they were deprived of Mother Nature's flowing curves. Yet anyone who has ever tried to draw a flower or a tree using the PCW will know exactly what such a restriction is like.

Load up a DTP program such as MicroDesign2, decide to produce your own image and you are instantly limited by the keyboard. When your only means of moving around is to use the cursor keys, this leaves you with exactly four choices: up, down, left or right. It doesn't make for great art.

The challenge of course, is to devise a way of creating movement on the screen that is more natural and, fortunately for the PCW, this happened a long time ago. The solution is both cheap and simple. Mice. Or in other words, little plastic boxes that are rolled around the table and transcribe your hand movements on to the screen. No surprise then that mice were an instant hit and are now available for most computers. And the secret of their success relies on a very simple idea.

Mice work by having a small ball fitted to the underside. When you move the mouse, signals are sent to the computer which then traces that movement on the screen. This is one of the design coups of the decade and the only problem for developers is that the mouse, like the wheel, is a difficult thing to improve upon. As a result, all mice look remarkably similar. They all do remarkably similar things - rolling, clicking and so on.

Reviewers have nightmares about mice. After all, what does one say? The new mouse from Creative Technology is, um, faster rolling? The clicking action is, er, clickier?

So despite much frenzied anticipation, we viewed the coming of a new PCW mouse with reservation. Yet we were in for a pleasant surprise. When the KeyMouse (as it is called) finally arrived, we found that it really did seem to break new ground - right across the board. From the basic design to the type of work it can do, KeyMouse seems to offer something rather different.

As a newcomer to the rodent family KeyMouse will have to contend with two



See how they run indeed; KeyMouse, the revolutionary new DTP add-on from Creative Technology, breaks new boundaries in conventional mouse design and performance

major rivals, the AMX mouse and the Kempston mouse. The basic principles of design apply to all three. Movement, as we explained earlier, comes from rolling the mouse over the desktop. Buttons on the top of the mouse can be used to imitate certain key presses. This not only allows you to 'draw' with your PCW but enables many tasks to be reduced to a quick mouse movement, followed by a click.

This much is true of all three mice. So what is different about KeyMouse? Well, the first and most obvious feature is that, unlike every other mouse, it is not attached to the expansion port at the back of the PCW. Instead, KeyMouse has its own mini-interface that plugs into the keyboard socket. This is a neat solution and avoids the need to stack up interfaces if you are using any other

PCW add-ons, such as a scanner or a Rampac. Another innovative feature is that, although KeyMouse is primarily a DTP tool, it can also be used with LocoScript, ProText and certain other CP/M programs. This is something that no other PCW mouse can do and as such is a feature that it is sure to generate much interest among PCW owners.

However, a mouse really comes into its own in the DTP environment and so this was the main test for KeyMouse to pass. KeyMouse was designed by Creative Technology to be used with two of their own programs, the DTP program MicroDesign2 and the scanning package ProScan. But both AMX mice and Kempston mice can also work with these programs. So are there any advantages in using the KeyMouse? To find out more we put it through some vigorous paces.

GET THE BALL ROLLING

Installing KeyMouse is very straightforward. The complete package includes everything you need: a small manual, a mouse pad, an upgrade disc for MicroDesign2 and ProScan and, of course, the mouse itself.

What you then have to do is simply switch off and unplug your keyboard, then attach both mouse and keyboard to the mouse interface supplied. Next, plug the interface box into the keyboard socket of your PCW. If you wish, you can also use some sticky-backed velcro spots (that come as part of the package) to fix the box on the side of your PCW. It is the perfect method to get those messy wires out of the way.

The mouse mat is used to run the mouse across. Its main purpose is to give the mouse ball a better surface to grip on to without any obstacles or sticky patches. This is laid by the side of the PCW and serves a useful purpose. But before you plunge into using your mouse you can opt for the simple



The KeyMouse package, complete with the special interface which plugs into the keyboard socket on your PCW

demonstration program. It is called **MouseSet**, and if you run the program you are treated to a demonstration of mouse skills. When seen in isolation we have to admit these are not going to set the world on fire. The cursor (shown as an arrow) moves around the screen in response to your mouse movements and

USING KEYMOUSE WITH MICRODESIGN2 AND PROSCAN

When you first load up your upgraded version of MicroDesign, you should be able to use your mouse straight away. If there are any problems, check that KeyMouse is selected in your Options menu. If you have never used a mouse before you will instantly notice one thing and that is the little arrow on the screen. By moving the mouse this arrow can point at any one of the many options on the MicroDesign screen. Using MicroDesign with a mouse is about ten times easier than relying on the keyboard. By pointing the arrow at your selections, the use of the program can become far more intuitive.

For example, if you are drawing in freehand, you would move the cursor over to the Design option and click. Then you would pick out an option such as Paint once again by a click. Choosing a shade or the type of brush you wish to use is easily achieved with - yes, you've guessed it - a click and finally drawing on the screen is simply a matter of treating the mouse just like a pen.

Thus, a complete novice on the PCW could produce a simple design in a matter of minutes. Compare this to the use of [RELAY] buttons and [EXTRA] buttons to jump from one box of choices to another and the mouse becomes an absolute godsend.

But, of course, this is not entirely the point. This much could be said of any mouse, and the MicroDesign program

can also support the Kempston mouse and the AMX mouse. So what is it that makes Creative Technology's new KeyMouse special?

Well, one of the things that Creative Technology are very proud of is KeyMouse's accelerated movement. This is thanks to the aforementioned "ballistics" and although it sounds very high-falutin' it simply means that the mouse responds to speed as well as distance. In other words: move the mouse quickly, and the cursor will move a long way. Move the mouse slowly and the cursor will be more leisurely in its response, moving only a short distance.

What this means in practice is that you can avoid the dreaded mouse shuffle. Whenever you try and move an ordinary mouse (the Kempston or AMX) completely across the screen it has a tendency to drop off the end of your mouse mat. To avoid this you have to pick up the mouse and put it back in the middle of the mouse mat and roll it again. Most people become very adept at this and end up doing the "mouse shuffle". With Keymouse you always get from one side of the screen to the other in one smooth movement. In general, the accelerated actions means that Keymouse feels more natural to use. (Incidentally if you want to switch the "ballistics" off, then all you need to do is type in [ALT][EXTRA][STOP] and press A.

that is really about it. But, if you are familiar with other PCW mice, you might notice a certain spriteliness. The cursor is far more responsive than with other mice and with little persuasion it fairly flies across the screen.

This is thanks to what Creative Technology call "ballistics."

But more on this later. The other things you can test out at this stage are the elusively named 'X/Y lock' and the even more oddly entitled 'StikiMid'. However, both of these are most impressive when seen in active service and we looked at them in conjunction with MicroDesign2.

Before you can use KeyMouse with either MicroDesign2 or ProSCAN, you must upgrade the working copies of each program. The upgrade process is very easy to follow and - after getting through a series of menus - you will end up with a new working disc: one that recognises KeyMouse. Once completed, we loaded up the new version of MicroDesign2.

Right track

Creative Technology also have plans to introduce a tracker ball version of KeyMouse. This will be of particular interest to disabled users as it requires no arm movement to operate the mouse. Basically, tracker balls work on the same principle as a mouse but the user can directly rotate the ball, which is embedded into a small case by the side of the PCW. The middle button in the present KeyMouse will be replaced by a large button at the front that can be pressed with the palm of the hand

Trace maker

If you have not used a mouse before, and are a little nervous about the idea of 'drawing' straight on to your screen, why not invest in Tracey from SideWise Ltd? Designed for use with programs such as MicroDesign 2, Tracey is a transparent moulding which fits to the side of your mouse, and literally helps you trace outlines more accurately. It costs £7.95, from SideWise, at Dept 8, PO Box 4, Totnes, Devon TQ9 7EN.

AS FOR THE REST...

The situation in Protext is much the same. You get into Protext mode by pressing [ALT][EXTRA][STOP]. Although it is quite a useful supplement to the main functions of the mouse, it has to be admitted that you can easily live without it.

Once again, it is probably best employed for copying, cutting or pasting text. The familiar markers, usually defined on the keyboard using [SHIFT][+], can be laid down in this case using the left hand button on the mouse. To delete, use the right hand button, and the marked text

can be cut, copied or pasted by using the mouse buttons while holding down the [ALT] key. This is actually quite an effective addition.

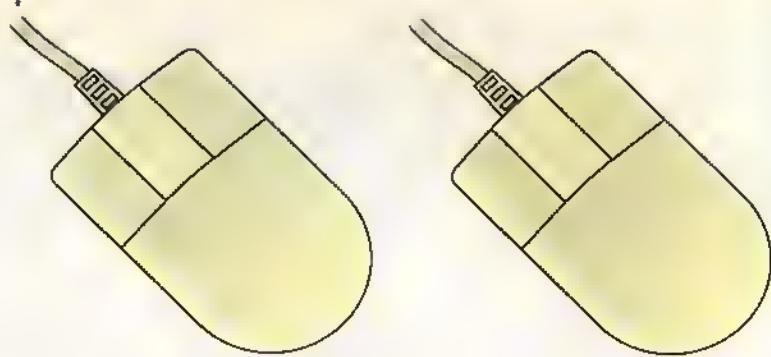
As with LocoScript, it is nice to have a mouse to move around the text with. It means you can jump to any point

Hard time

At the time of going to press the KeyMouse does not work with the Vortex hard disc. This say Creative Technology is the only incompatibility that they know of and they are currently hard at work to find a solution

Finally, the last option is CP/M mode. This is summoned by pressing [ALT][EXTRA][STOP] followed by a C. KeyMouse will then allow you to mimic the use of the cursor keys by moving around the screen, and provides the [RETURN] [EXIT] and [STOP] keys using the three mouse buttons.

Any program which makes use of these keys in abundance, such as Money Manager, could benefit enormously from the addition of a mouse to assist day to day operation.



In Protect mode

Left	Centre	Right
Mark	[STOP]	[CAN]
with [ALT]	[CUT]	[COPY]
with [SHIFT]	[DEL]	[PASTE]

The most useful options within Protect are the ones to set markers and those to cut copy or paste text - plus increased text navigation

In CP/M mode

Left	Centre	Right
[RETURN]	[EXIT]	[STOP]

Switch to CP/M by pressing [ALT][EXTRA][STOP] followed by a C. Once you are there, there are only three choices available within CP/M, plus the normal scrolling action of the mouse

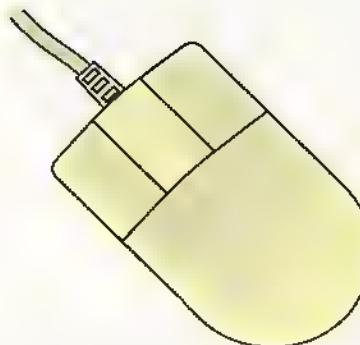
KEYMOUSE WITH LOCOSCRIPT

KeyMouse is unique in its ability to be used with other programs. The main contenders are Protect and LocoScript and each have their own 'mode'. Basically, to use the mouse in LocoScript you press the keys [ALT][EXTRA][STOP] followed by an L.

This then allows you to do things like cutting and pasting text by using the mouse which can be quite a bonus. However, most programs including LocoScript, were never intended for use with a mouse and so there is a limit to how effective they can be.

Take LocoScript for example. Once the KeyMouse is installed you can perform certain tasks more efficiently. However, because of the way the menus are set up, you cannot use the mouse to point directly at options on the top command line. This is the sort of thing that mouse-driven programs, like MicroDesign 2, specialise in.

The way the mouse operates within LocoScript is by using the mouse movement to move the cursor and the



In LocoScript mode

Left	Centre	Right
[ENTER]	[EXIT]	[CAN]
with [EXTRA]	[CUT]	[COPY]
with [ALT]	[+]	[DEL]
with [SHIFT]	[f1]	[f3]
		[f5]

In LocoScript, the mouse can imitate a total of twelve keys. The most useful task for the mouse are cutting, pasting and copying text.

buttons on the top to emulate certain key presses. For example, the left hand key on the top of the mouse is equivalent to pressing [ENTER]. Likewise, the middle mouse key replaces [STOP] and the right hand key can be used to replace [CAN]. To mimic an entirely different set of keys, you can hold down one of the keys on the keyboard, such as the [SHIFT] key. Full details of what key presses are available on the mouse are given in the diagram above.

Using the mouse to replace all of these key presses all of the time would be unduly complicated. The most sensible option seems to be to use the KeyMouse for moving blocks of text around and adding codes to the text. Other key presses are best entered from the keyboard in the usual way.

One other advantage of using KeyMouse with LocoScript is that you can make the cursor to zip around the Disc Management Screen at a rate of knots. If you want to browse at a more leisurely pace you need to hold down the [ALT] key to slow things down.

KEYMOUSE - THE 8000 PLUS VERDICT

It makes sense that Creative Technology, would have more than a passing interest in mice. Mice and desktop publishing have always gone hand in hand - and Creative have the added credibility of being the people behind the leading DTP program, MicroDesign 2.

Many tasks, such as freehand drawing and stretching boxes, tend themselves to the flexible mouse.

Creative Technology have tried to outwit the competition by adding a few extras to KeyMouse. The most basic change is one of design. Rather than being clipped to the back of the machine, this one is attached via the keyboard socket. All too often one sees a veritable pile of add-ons teetering on the

back of the PCW and it's certainly nice to see a PCW add-on that will not exacerbate this overloading.

The other major advantage is that KeyMouse has accelerated movement so that it will move the cursor quickly or slowly at different times. The faster your hand movement - the faster the cursor moves, giving it a more natural feel.

When you adjust the mouse speed using the MicroDesign or ProScan menu this gives you a freedom of movement that will be very close to your own personal ideal.

Two less important features are aimed at the designer. The first is a facility that only allows vertical or horizontal lines. So, even if you are a

little hesitant with your grip, with this option switched on, your MicroDesign drawings will come out as straight as a die. Another feature gives you the ability to lock the left hand mouse key, again used mainly for drawing purposes.

Last but not least, the KeyMouse can work with other PCW programs, such as LocoScript. It is mainly useful for moving around and manipulating text but it is quite a helpful supplement.

However, it is probably not worth buying KeyMouse on these grounds alone - unless money really isn't an object for you. It is, first and foremost, a DTP tool. When it is used with MicroDesign or ProScan, then KeyMouse is indisputably at the top of the tree.

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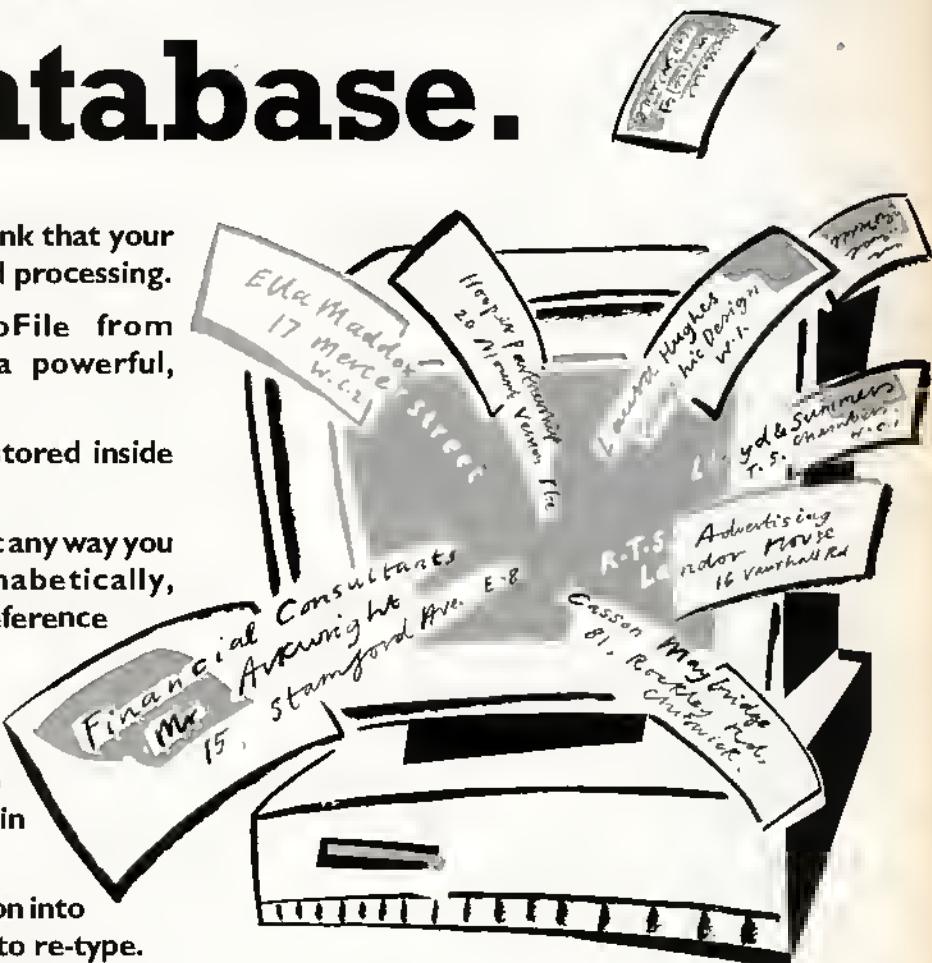
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Protext Surgery

Martin Le Poidevin opens his casebook and answers more of your queries on Protext, the powerful PCW word processing tool.

Final Call!

If you are impressed by the power of Protext, why not convert to it? The program is sold by Arnor, and costs £59.95 inc VAT. You can find Arnor Ltd (EP), 611 Lincoln Road, Peterborough, PE1 3HA (0733 68909). Arnor also distribute Rob Ainstey's book on 'Protext...A PCW User's guide'. It costs £9.95 + £1 p&p. If you want both the program and the book, though, you can get a special deal at the moment: Arnor are offering them together at the discount price of £49.90.

Question:

I have recently converted to Protext from LocoScript. I'm very happy with its speed, but I'm rather disappointed about a couple of aspects of the program. The majority of the documents I write are letters following one of three formats. In LocoScript I could use templates, but in Protext I seem to have to create the format from scratch for each document. Am I too hopeful to wish that Protext has got some template storing device tucked away? DO, Wilts

Answer:

Yes and no. The bad news is that Protext doesn't have a specific templating system hidden away inside it; the good news is that you can simulate one quite effectively.

Decide exactly what you want the format of the letter to be. Include ruler

lines to set the margins, stored commands (using the '>' command symbol) such as headers, footers, pagination, side margins, as well as any text which is common to each letter - your address, for instance, or a special letter heading text.

When you have set everything up, save this new document - still without any text in it - to disc. Give it a name which will remind you of what the file is. This could mean giving it the filetype **STD**, as LocoScript does.

Whenever you want to use the template, just load it as you would do a normal file. Fill the template with your text as normal, but when you come to save the file to disc, give it a new name. This means that the original template on the disc remains intact, so that you can use it for your next document.

A few thoughts: if you do happen, by mistake, to save your filled document to disc under the name of the template,

don't despair. The disc should now contain a **.BAK** file with the same filename, which will be the old template. Rename your new document (using Protext's **REN** function), then rename the template file using the **.STD** file extension to show it is a template.

If you wish, you can emulate LocoScript by putting different templates in different groups - using the command **U** followed by the number of the group. You can even give each group a name, by creating an empty file with the filetype **.GRP**. The first eight letters of the filename will be taken as the group name, and will be displayed each time you perform a **DIR** or **CAT** on the contents of that group.

On the other hand, you don't need to do this - unlike LocoScript, Protext can keep several template files in the same group. Since Protext can only display the contents of one file at a time, this is probably your best ploy.

contain just a name and address, with each element (or part of the address) given a line to itself:

Perceval Whipplestake
37 Rose Crescent Bower
Crumhorn Parva
Middlechester
Wessexshire
MX23 1OD

Marjoram Thyme
Hautbois Cottage...

and so on. Notice the gap between the two addresses - this is now Protext knows that one address has finished and another is about to begin.

Make sure that the last element of the last address ends with a **[RETURN]**, and save the file to disc. It doesn't matter what name you use - try **ADDRESS.DAT** for size.

The template file is more complicated. You will need to tell Protext at the start of the letter exactly which data file you want merged with the template, and what the structure of that file is. Both these are stored commands, beginning with '**>**', and both have to be put at the top of the document along with such other commands as those for continuous paper or header and footer details.

The commands are: **>DF** **ADDRESS.DAT** (or whatever the name

```
PROTEXT Document openmeet.let 1K Justify Off Word-Wrap
Page 1 Line 1 Col 1
>DF DATA.DAT
>RU Name surname member subs title a1 a2 a3 a4
Named & Surnamed
a1&
a2&
a3&
a4&
Dear &Title &Surname&,
This is to inform you that a special Open Meeting of the Andy Pandy Appreciation Society will be held on September 18th. All are invited - whether members or not. Bring your friends.
If member="y"
I would also like to point out that your subs are due - and that this year that amounts to £25subs.
AU extra
SV total=extra+subs
In addition, £&extra is outstanding, making a total of £&total.
EL
Please come if you are free!
EI
Yours,
```

```
PROTEXT Document data.fl
Page 1 Line 1 Col 1
Peregrine
umptious
23.45
ir
the Castle
Castle Road
Battleshore
SI 1AK
elf
sniff
F A
```

The document on the left is a template, waiting to be filled with the data from the document on the right. Notice the number of different mail merge commands used in the template.

of your data file is), and **>RV NAME A1 A2 A3 A4 A5 A6**. The second command gives the computer labels by which it can refer to each of the lines in the data file. In this case the name and 6 lines that can be used for addresses.

Unless you have been very strict with yourself about the number of address lines that you have used for each entry, you will undoubtedly find that they are of differing lengths. This does not matter. If there is no data to be applied to a label, Protex will ignore it. It will not even print a blank line in its place, which will clear up a lot of potential blank spaces on your finished letter.

Having issued these commands at the top of the letter, you can now tell the computer where you wish each labelled piece of information to come. You do this by referring to each piece of information by its label, and by enclosing it in "&" characters.

When you come to print out, these label names will be replaced with information from the data file.

That is the simplest form of mail merge. But things can get much more complex if you need them to.

The conditional commands **>IF**, **>EL** (standing for "else") and **>EI** (end of the If statement) can be combined to make your letters more personal. You may, for instance, have a line in your data file which specifies whether a person's title is Mr, Ms, Miss, Rev, Sir and so on. Or it could be blank (which in a data file must be shown as "\$", so that Protex doesn't simply take the blank line as signalling the end of the file).

If there is a title in that line of the file, you want to put "Dear & Title& & Name&". to get that personal touch; if there is no title, you will want to put the more judicious "Dear Sir/Madam".

The big question here is whether there is a title or not - if there is, you want to use it with the name, if there is

not, you just want to print a particular, pre-defined phrase. But whichever is chosen, the rest of the letter is the same.

The syntax here becomes:

```
>IF TITLE=""  
Dear Sir/Madam.  
>EL  
Dear &Title& &Name&.  
>EI
```

which you could read as: if the title data is empty, print "Dear Sir/Madam", else print "Dear title and name", and that's the end of the "Ifs" and "otherwises" for the moment.

You could easily use the same decision process for ascertaining whether to use "Yours faithfully" or "Yours sincerely" at the end of the letter; an empty title string would mean a letter beginning "Dear Sir/Madam", and so requiring "Yours faithfully" at the end; otherwise you will want the letter to end with "Yours sincerely".

If you want to use your mail merge to produce invoices, you will be happy to know that Protex can handle variables and perform calculations on them. **>SV** is the command that does this: **>SV TOTAL=COST1+COST2** will add up COST1 and COST2 leaving you with a new variable called 'TOTAL'.

You can even input from the keyboard, using the command **>AV**, followed by a prompt text in inverted commas, to give you a variable that you can again play around with. You could input, for instance, the date, the cost of an item, the current interest rate - almost anything. You could even chop and change, or omit, whole sections of a document at will:

```
>AV "Is this client OK?" INPUT  
>IF INPUT="y"
```

You are a most valuable client, and we would be very, very sad to lose you, so

Peregrine Bumtious
The Castle
Castle Road
Castleshire
CS1 1AA

Dear Sir Bumtious,

This is to inform you that a special Open Meeting of the Andy Pandy Appreciation Society will be held on September 18th. All are invited - whether members or not. Bring your friends.

We would also like to point out that your subs are due - and that this year that amounts to £323.45.

In addition, £445.78 is outstanding, making a total of £969.23.

Yours,

Looby Loo

The result of the first merge. The addressee is a member, so gets the subs information. The extras were input from the keyboard

Aif Smiff
M F A

Dear Smiff,

This is to inform you that a special Open Meeting of the Andy Pandy Appreciation Society will be held on September 18th. All are invited - whether members or not. Bring your friends.

Please come if you are free!

Yours,

Looby Loo

The second merge. Much less information was provided, but Protex still produces a very neat letter, with no excess spaces

please don't go away, but stay with us for a long time.

>EL IF INPUT="n"

Give us the money we want, or the boys will be round in the morning.

>EI

This, of course, is only a short introduction to the mail merge part of the Protex program.

For further details refer either to the manual - having been given a head start on some of the jargon! - or else to Rob Ainsley's excellent book on Protex which not only explains the system, but also gives lots of useful examples (see the margin note for details).

One thing to notice, though - the mail merge part of Protex is not available in the "pocket" version of Protex.

you put an R, to make your ruler line 2000 characters wide. Press [STOP], type **FORMAT [RETURN]**, and suddenly all your paragraphs will be single lines - unless your paragraphs are very long indeed! Save this to disc under a new name, and remove it from drive M: by typing **M [RETURN] ERA** followed by the name of the file. Load LocoScript, and create a brand new document. Immediately press [F1] ([F7] in Loco!) and select "Insert Text". You'll be taken to the disc management screen, where you should select the file that you have just made in Protex. Again, you will lose the embedded codes and you will probably have a few extra characters which have appeared in the text; these can be easily dealt with using LocoScript's [EXCH] function.

You can also use text from other word processors. Mini Office files are perfectly legible once you remove the introductory codes, and Protex itself contains a utility to convert WordStar and NewWord files to its own format.

Question:

What is the best way of incorporating a second file within a document?

A C Northampton

Answer:

There are three ways.

One is to use the two file editing option (using [ALT]+Y and [ALT]+O). The second option is to use the **MERGE** command. This will insert a specified file into the document you are currently editing, beginning at the current cursor position. The most powerful way of dealing with this, though, is to use the **>IN** command. This is invaluable if you are, for instance, printing out a book with a large number of chapters: create a new file, put header, footer and printing details, and then

>IN CHAP 1
>IN CHAP 2
and so on. When you print this file, Protex will automatically search for the files in the correct order. An impressive way to print several hundred kilobytes of text from a 1k file!

Question:

I have always used LocoScript, but I am wondering about changing to Protex. One of the things that I will have to be able to do, though, is read my LocoScript files in Protex. Is this a possibility or not?

EF, Scarborough

Answer:

Yes, it is. The problem is that LocoScript puts a whole gamut of coding information before, during and after the text of a document, thus making the whole thing virtually unusable. However, there is a fairly simple solution, which is to make an ASCII file of the text, which Protex can read.

At LocoScript's disc management screen, select the document you want converted. Press [F1] ([F7] in LocoScript!), and select "Make ASCII file".

Move your cursor to the group in which you want your new ASCII file to be (since Protex automatically reads group 0, that is the best place to put it),

and press [ENTER]. Rename the file if you wish - if you are staying in the same group, you will have to rename it. Finally, choose the "Simple text file" option, and press [ENTER].

Boot up Protex, insert the disc with the ASCII file on it and load it as normal. It may be that the text is arranged a paragraph to a line - which makes the lines very long indeed. To counteract this, type **FORMAT [RETURN]** at the a> prompt. The text will be reorganised so as to fit on the screen, and on to the printed page.

You can now edit and print the document as normal - and notice that you will have to put all the printer codes back in, because they will have been lost in the transferring process.

Transferring text the other way - from Protex to LocoScript - is just as simple.

Firstly, make each paragraph a single line. You can do this quite simply. Move to the top of your document, type > and then [ALT]+G followed by **c2000**. This will move you to column 2000, where

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LOCOPLUS

LocoPlus is the part of the magazine that is devoted solely to matters of LocoScript and its associated programs. We begin with LocoScript Surgery, dealing with the queries and problems that you have raised

Question:

I have been trying to change the information on my start of day disc from 2" labels to 1.5" labels as set out in your article in the February edition of 8000 Plus - but without success.

I own a PCW 9215 and although I can get the machine to change everything up to print 16 as suggested, I cannot seem to get the words 'write to disc now in drive A'. Every time I try, I get a message telling me that the gap is too high!

I do not think that my start of day disc is write-protected as it is one I have made myself from the master disc. Any suggestions please?

I do have two printers; the one supplied with the machine and an AMSTRAD DMP3160 with a tractor feed so that I do not have to put the tractor unit on the 9512 printer.

Answer:

Without seeing what you're actually doing, it's very difficult to be sure, but it sounds to me as if you're starting out with the A4 rather than the "2" labels" paper type selected.

Question:

Three queries:

1) Is it possible to increase the number of groups on a LocoScript 2 disc, in particular on a drive B: disc for the 8512?

2) In the last few months either my software (LocoScript 2) or my hardware (8512) seems to have developed an odd fault. When I use the shift/cursor facility to move along a line, lift my finger off the shift key and then soon after (within a second) press the cursor again, the cursor key continues to act as if the shift key were down. Any ideas why this might be?

3) A nasty problem with someone else's 8256. From time to time, while a document is being edited in LocoScript, the computer goes dead and will not respond to any commands at all, except the off switch. The cursor disappears and on the top lines are the following words:

*Editing document
g A:*

Unfortunately this computer was left unused until most if not all of its guarantee had expired. It looks as if

it doesn't actually matter, as long as you check the top and bottom gap. I suspect what's happened is that you've started to set up your new paper type with the paper type selected as A4 single sheet, which means the top gap will be 6 lines and the bottom 3. This adds up to 9, and there are only 9 lines on a 1.5" label, and since you haven't altered these settings, the machine is kindly stopping you from setting up a paper type that will be impossible to print on to.

You'll also have to check the continuous stationary option and the paper sensor option. This is why I think that it's probably better to start from a paper type similar to the one you're after.

From what I can tell, I think the step you've omitted is this:

When you press [F6] for settings, don't select 'New Paper type' straight away. First move down to and select 'Paper type'. You'll see a list, and one of the options should be '2" labels'.

Move the cursor up to it, then press [ENTER]. Then exit from there and get back to the 'New Paper type' option.

When you press [ENTER] now, the details on the screen will already be set up for the 2" labels, including the correct top and bottom gaps, the correct

This problem may have been there from day one. Any ideas?

Answer:

Three Answers:

1) Not as far as I know. There are actually 16 user groups, not 8. You can see them in CP/M, but LocoScript uses the second 8 for Limbo and there's no way of altering this.

2) Try cleaning the keyboard - see our walkthrough on pages 42 and 43. You may well find a mat of hair and dust under the keys, which you can remove.

Also, if you're using a fairly recent version of LocoScript 2, check that you haven't got the "Sticky Shift" option switched on. Press [F8] Options from the Disc Manager Screen, and if you have a recent version, you'll see the options for "Large Edit" characters and "Sticky Shift Keys". Make sure there's no tick beside the sticky shift.

"Sticky Shift" lets you press keys in sequence rather than together, so that to get an 'A', you can press [SHIFT] then the 'A' key, rather than have to press both together. It works with the keystrokes for moving the cursor, too.



Put the cursor on paper types first...



...and select a paper type similar to the one you are going to create, in particular in respect to continuous or single sheet paper

continuous and paper sensor options, so that all you actually have to do is alter the height setting, and you will then be allowed to save the paper type to disc.

I do hope that sorts things out.

3) This is known in technical circles as "hanging", when the computer just won't respond to anything. It could be either a hardware or a software problem.

If the PCW is doing this regularly when it's been on for a certain period of time and warmed up a certain amount, then that does tend to imply that the machine is at fault.

On the other hand, does it respond if you try to reset it rather than switch it off? Try pressing [SHIFT], [EXTRA] and [EXIT] together and see what happens; the computer may act as if it's been switched off and on again, and you can re-load from there. If it does, that tends to suggest there's nothing wrong with the machine itself.

Which tends to mean that there is some fault which has developed in the software. I would be particularly suspicious if your friend is using LocoScript 1, which has been known to cause some odd things to happen from time to time.

Try loading it with a copy of your Start Of Day disc from your machine. If it performs correctly with that, it will suggest that the owner needs a new copy of the software in question.



Roman letters

Rome wasn't built in a day, they say, and a complete understanding of LocoScript doesn't happen overnight. Don't despair, though. Loco Surgery is here to help you learn. If you have any problems or questions, send them in to our Loco Surgery expert, Liz Bruce, at Liz Bruce, LocoPlus, 8000 Plus, 30 Monmouth St., Bath, BA1 2BW. And don't forget, your questions don't just have to be about LocoScript. Rome had seven hills, and LocoScript has LocoFile, LocoMail, LocoLink, LocoFont and LocoScript PC, just waiting to be asked about!



LocoSpell and as they did with the original LocoScript?

In November you told us setting margins in LocoScript 1 causes severe problems and is one of the best reasons for getting LocoScript 2. I think you are being unfair to LocoScript 1. Agreed that the LocoScript 1 manual is unintelligible, but I learnt by trial and error and it eventually dawned on me that the pitch set in the base layout controlled the position of margins, even if the pitch was later changed either by the style menu, new layout or [+]p???. In other words margins remained where you had put them. Now in LocoScript 2 you have to remember sole pitch which is an additional hurdle which Rhn Ainsley fell at in his 'High Speed Loco' article on Page 12, January 91 under the heading '10. Marginally better'. I have found out too that if you change Layout 1 you must remember to change Layout 0 or else your right-aligned address will not be where you expected.

One query: having perfected a layout in a document is there any way it can be transferred to stock layouts? It seems that stock layouts can only be changed in the document set up screen where there is none of your text to help. It is useful to be able to change

layouts automatically, but it would be most helpful to be able to get your well-honed layouts into stock layouts.

Answer:

Having been accused of bias towards LocoScript 2, I've included this letter complete to balance things up.

Actually, a great deal of my bias is because of the point made in this letter: the dreaded manual. I have seen more distress caused by the LocoScript 1 manual than all the rest of computing put together! But you have missed one point here, and that is that once you have LocoScript 2, you never need to use CP/M again if you don't want to. Being able to format and copy discs direct from within the word processing programme is in itself worth a lot to many people.

Now to the puzzling points. If you use LocoScript 2 straight away, and have never used anything else on your computer, you can simply copy the Master disc to make a Start of Day disc, as in the original LocoScript.

However, the LocoScript 2 being sold for the 8000 series machines is really an upgrade, and provision has had to be made for the changes people may have made to their computer set-ups, such as adding other printers.

The installation program takes all

that into account and lets you incorporate all that extra information, rather than making you go back and do it all again.

As for the margins, you may have figured it out, but you're one of very few... Yes, you have to understand about scale pitch in LocoScript 2, but once you do, and once you realise you can set up 10 different layouts and keep them, life improves, don't you think?

Now to the query. Yes, you can do this to some extent.

Prestimously when you're fiddling with layouts, you're using the 'New Layout' option. If you use 'Change Layout' instead, you will, in fact, change the layout you're currently using. Its name is at the left of the status bar at the top of the screen.

So if you're using Stock Layout 1, and you change it, those changes will be preserved in Stock Layout 1, and will appear every time you use that layout.

Unfortunately, this little trick only seems to work with Layout 1, the default layout for the document, and I haven't managed to get it to work with any of the others. Instead, I've had to write down where the tabs are on a piece of paper then go back into the stock layouts and put them in manually.

It's far from ideal, admittedly, but thinking ahead can make the whole procedure very much easier.

question, and I don't really have a answer, I'm afraid.

You're quite right, of course; there is no reason at all why the printer can't print the file rotated through 90 degrees - it does when it's working with Micro Design, for instance - but it's nothing to do with the printer itself, it's organised by the software. The printer just draws what the computer tells it.

The omission of sideways printing from the LocoScript programs may have something to do with the size of font file that would be needed, the amount of disc space used up by the necessary printer support, and subsequently the amount of memory that would be taken up by the program - and which would not be available to your M: drive.

It's not that unreasonable that you've suffered the Landscape option although you only have an 80 column printer. There are, after all, other types of paper beside A4. People do use A5 on its side - that is, in the Landscape orientation - and, of course, you may well get another printer at some stage, if the recession eases, or if printer prices fall.

Question:

I have a question in which, I have no doubt, there is a simple answer. However, simple though that answer may be, it still eludes me.

It concerns the aspect of Portrait and Landscape printing.

As a user of a PCW8512, I have the dot matrix printer which was bundled with the package. Admittedly, the quality is far inferior to a Laser printer but at least I am not restricted to the limited range of characters of a daisy wheel printer. In any case, I cannot afford to upgrade my printer simply in order to be able to print on wider paper, which effectively means that I am denied wide paper printing. My question is: Why?

Since a dot matrix printer doesn't care what a figure looks like, because it constructs figures by a pattern of dots, surely it would make little or no difference to a dot matrix printer to construct those same figures sideways.

It seems to me that software producers such as Locomotive are

needlessly sacrificing the profits they could be reaping (by enabling LocoScript to print sideways) in favour of allowing printer manufacturers to reap those same profits through selling wider carriages to those who need them. There are plenty of Public Domain programs which enable CP/M users to print spreadsheets sideways on their dot matrix printers. Why can't Locomotive add this facility to LocoScript? This would make LocoScript even more attractive, especially to the beginner and to those with limited budgets (a category which includes more and more people as the recession bites deeper.)

When selecting Paper Types by pressing [PTR] and [F3], you are offered the choice of Portrait (Tall) or Landscape (Wide) paper - but what is the point of such an option if we can't then make the printer print sideways?

Answer:

Several people have asked the same

One could of course store a range of document styles, sizes, layouts, etc. on, say, Group 1 of the Start of Day disc and Copy/Paste the particular one required from M: to the document being created in the subject group. Alternatively an earlier document with the required shape could be copied and the old text deleted.

But both these methods seem

rather clumsy. Is there not a more elegant solution to this?

Answer:

There are probably as many solutions as there are LocoScripters. In fact, organising the discs and the data often causes newcomers more trouble than actually learning the program.



Question:

In LocoScript 2, how can I leave a blank line between the main text and the footer text - for example to separate the last sentence of the page and a "please turn over".

Answer:

Put a [RETURN] in the footer before you type "please turn over". Remember the [RETURN] counts as a line, so leave room for it when you set up the footer allowance. Treat it as if it was a separate page. Move the text down as many lines as you want to, by putting returns in front.

If you are using a lot of different templates and constantly changing around between them, the best solution probably lies not in using different groups, but different discs - plenty of them. So you will have a gardening disc, a cookery disc, and so on.

You can then put a template in each of the eight groups on your Start of Day disc. These will automatically be copied to the M: drive when you boot up LocoScript, so that you don't need to put any templates at all on your data discs.

When you create a document, LocoScript looks the appropriate

template for that group. If there's not one in the disc group itself, you're actually creating the document in, it looks in the same group on drive M; then it tries the first group on the disc drive you're using; finally the first group on drive M.

So if you keep your headed letters in group 0, plain A4 in group 1, A5 in group 2 and so on on your Start of Day disc, the documents you create will always follow the template in that group in Drive M. You can name the groups on the Start of Day disc according to what the templates are set up to do, and they will be given the same name on

Question:

I am looking forward to changing over from a 3" Drive B on my 8512 to a 3.5" internal Drive B, perhaps as a result of Christmas.

However, I have a number of data discs from my present 3" B: drive. These include some large LocoFile documents which would overflow one side of an A: " drive disc.

Although they are all copied on to 'backup' discs, these too are for the present 3" Drive B.

If I change the B: drive, as so well described in August 8000 Plus, how can I transfer my LocoFile documents from 3" to 3.5" discs?

Whilst I realise that the information may be in the manual somewhere, I usually find it necessary to follow a "trial and error" process when learning to carry out a new function. This would not be practical if I have already installed a new drive.

A simple "step by step" article in your LocoScript Surgery (or using CP/M) would I am sure be very useful for those of us contemplating this step!

Answer:

This question is on a lot of peoples' mind at the moment. It's similar to an earlier question, but now we are dealing with the data from a B: drive disc. The more I think about it, the worse it gets. Given that you end up with a situation where you have no way at all of reading a B: drive disc, I don't know.

Most people presumably get round it by transferring everything on to A: drive 3" discs before changing the drive. If you have data files too big for a 180k disc, however, that does rather rule that particular option out.

There are ways of transferring these large data files. You could split them into chunks - easy if you have LocoMail - which are small enough to fit onto an A: drive disc (see August's Listings section for a way to get 178k of data on to a disc). You can then reassemble them on your new 3.5" discs, again using LocoMail.

If you can't then you have to find a way of transferring the files intact. The easiest way I can think of is to find someone with a 9512 that has a 3.5"

Drive M. You can see at a glance what each group is set up to do.

One tip if you're organising things by date. If you use the date as part of the file name, things can go wrong. If you use a six figure number, e.g. 130991 for the 13th September 1991, all will go well through September. But when you get to 031091, that will be listed in front of September, as it's a smaller number.

The best solution is to always put the dates in backwards, as 910913, then 911003. That way the number always increases, and the files will be listed on the disc manager in the correct order.

drive fitted. Second best, and more likely, would be to find someone sympathetic with a PC using a 3.5" drive. You can then use LocoLink or another communications package to tie the two machines together and dump all your B: drive disc data on to a 3.5" disc by that method.

It would be very straightforward if you could find someone with the new LocoLink, which basically allows the PC to treat the PCW as another disc drive, so you can move files around very simply on one disc manager screen. You might then have to alter your files from the MS/DOS format into PCW format using either 2in1, or some other software, such as that which came with the new 3.5" drive.

With the arrival of the new PCWs, and the expected increase in PCW-PC interfacing, the incompatibility of 3" and 3.5" drives has become a major issue. It remains to be seen whether it will be possible to physically link, say, the 8256 with the 9256 and get data on to 3.5" discs that way.

I shall continue my investigations. Meanwhile, are there any other ideas?

Question:

I am having problems with page numbering on my PCW8512 with LocoScript 2. I have followed the

manual for numbering pages of a book, but my problem is getting the machine to print them out.

The first lot of about 60 pages are numbered OK. Then I changed the disc, followed the usual procedure: [F1]=Document Set Up, then [F5]=Page. The numbers are already correct so I [EXIT] back to Document Set Up and type in '====+PN====' and [EXIT] to the editing screen, and print the document. It then prints the first page number, but after that it just prints '==== ==', without the number. What am I doing wrong?

Answer:

The only thing I can see is the first lot of equals signs, though I don't actually see why this should stop the pages numbering.

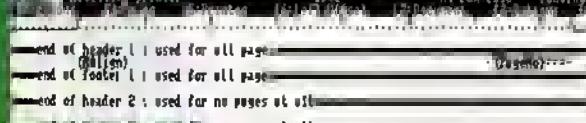
The original hyphen is simply to make things look nice, you don't actually need it. The same applies to the one at the end. They just put the number between the dashes. All you actually need is the +PN code, and an indication of the space to be allowed for the figures.

In your case, you're actually giving an allowance for three figures, by putting the three '=' signs after the +PN code. The first three '='s are not necessary, and will probably simply print as '==' before the number. I suppose it's just possible that putting them in is mixing things up somewhere. Try typing '+PN==', and see what happens.

I haven't come across this before. The usual problem is that people set up the page numbering correctly, but omit to actually leave a footer zone in the page set up. In that case, of course, nothing is printed at all - because there is nowhere to print it! It is worth checking, though, that you haven't got the footer set for first page only or something like that. This just could be the computer some confusion, I suppose.

The equals signs tell the print the page number centralised within the hyphens. You can also use '<>>' signs, which will make the page numbers line up with the left hand '<', or '>>' which will make them line up with the one on the right. None of that, though, helps to explain your particular problem.

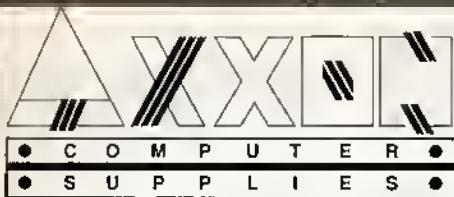
Let me know what happens.



This is what you should see when you set up to print page numbers. Check that the message does say "used for all pages".



You also need to be sure you have, in fact, left room for the footer. If the footer zone is set to 0, no text will be printed.



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replacement will take place very quickly and you will find that each record is placed on a new line.

Now you need to delete all of the quotation marks. Move back up to the beginning of the document and press the [SHIFT][EXCH] keys. This time enter " in the Find box and leave the Exchange box empty. Choose to replace automatically,

and press [ENTER]. You will be left with document that looks like the one in our screenshot. This is now in a form that LocoFile can use. (Make sure that you insert the new lines before you get rid of the inverted commas.)

... and LocoScript's Exchange facility helps to create new lines



STEP 3: ORGANISING THE DATA



Make sure that you prepare a pattern so that LocoFile identifies the data and the form in which it will be presented later on

The next step is to provide LocoFile with a pattern, so that it knows exactly in what order the data will arrive, and as a result how the subsequent fields and records are to be laid out.

As you can see from our last screenshot (in step 4 below), we are aiming for the final document to begin each record with the name of the person, followed by their telephone number and

last but not least, the address - just as it was in the original Masterfile document which we have transferred. Each new record is placed on a new line and the fields are separated by commas. The record pattern which you set up should mimic this exactly.

We created a brand new LocoFile document and typed in NAME, TELEPHONE, ADDRESS then a new line, as shown in our screenshot. We called this document MASTER.DAT.

STEP 4: CREATING A DATAFILE TO RECEIVE THE INFORMATION

The final step is to create a LocoFile database to load the information into.

It is important to make sure that the field names in your LocoFile set-up are exactly the same as those you specified in the record pattern in MASTER.DAT. Call this blank datafile ADDRESS.DAT.

Now you need to load in the data. This is the most dramatic part of the operation. Choose the option to Run LocoFile and pick out the LocoFile database you have set up (in our case ADDRESS.DAT).

Then choose the option to Insert data from the [F1]=Actions menu.

LocoFile will ask you firstly for your record pattern (in our case MASTER.DAT), and secondly for the data itself (ADDR.LST). The final stage is to press [ENTER] and the whole series of records will magically appear in your LocoFile database. We've shown the very last of these in our screenshot on the right.

And that's it! From this point onwards, you can treat the new information just as you would any other LocoFile data.

The record in its finished form safely stored within LocoFile



QUESTION TIME

Question If I want to transfer data the other way, from LocoFile to another database, how do I do it? There does not seem to be any way of getting LocoFile data into ASCII format.

Answer This involves a bit of side-stepping. As you probably know, you can put LocoFile information into LocoScript documents by running a report.

This does involve using LocoMail. You will need to produce a report, with the fields separated by commas. And once you have it stored in a LocoScript document you can convert it to ASCII using the usual commands for converting LocoScript documents.

Question I may want to transfer data into LocoFile from a variety of different sources. How do I know if it is possible and what should I do?

Answer There are many different databases around and if yours can save the information in ASCII, it should tell you in the manual. Look up ASCII in the index, and closely follow the instructions that it gives you.

Then you load your data into a LocoScript document as shown in Step 2. It may not look exactly the same as our example, but you can use the same principles to convert it. Make sure you know how to use the Exchange command and get it into a standard LocoFile form.

The rules are that each record should start on a new line and each field should be separated by a punctuation mark. The punctuation mark itself doesn't matter. It could be a comma - as shown here, or it could be a semi-colon. The important thing to remember is that it must not a punctuation mark that may occur in the text itself.

Question My database does not allow you to only save certain fields. Instead it saves the entire record. The problem is that I don't want all of the information to be transferred over to my LocoFile database. In fact I only want one or two of the fields. What do I do?

Answer This is no problem at all. What you need to do is set up your master pattern carefully. Let's imagine you have two fields in LocoFile called name and

telephone number. Then imagine that there are three fields in your data, that correspond to name, address and telephone number. Because the record pattern needs to be an exact replica of the data, you must include Name, Telephone and Address in this pattern. However, when you come to merge the data with your LocoFile card, the address data will have no field to go into, and will simply be ignored altogether.

Question My addresses need to be on more than one line, but this means putting [RETURN] characters into my data before it is read in. The problem is that LocoFile looks at each new line and assumes that this is the beginning of a new record. Of course, this is going to completely confuse matters. What should I do?

Answer What you need to do is use the end-of-page marker to mark the end of each record (instead of the newline character). This allows you to put [RETURN] characters (in other words the newline character) anywhere you wish within the data.

Bluffer's guide

ASCII actually stands for the American Code for Information Interchange. Very few people know this, which makes it one of life's ideal excuses. How about this, for instance? "I'm sorry my project is late, but I can't seem to get my database to recognise the American Code for Information Interchange." Enough to baffle the average manager, we reckon!



Over to You!

Share your LocoScripting wisdom with other readers - here! Send your tips to Over to You, 8000 Plus, 30 Monmouth Street, Bath BA1 2BW

Space ace

This is what to do when you see the 'disc full' message on your PCW screen. **Loco 1:** Select a file which takes up a lot of disc space. Press [F4]. Move the cursor to group 0 on drive m. Press [ENTER] twice, then [EXIT]. Your file will now save with the space available. Do not switch off or reset the machine until you have read the final step below.

Loco 2: Repeat the first step as above, but press [F3]. Select 'move file'. Respond to the message 'Pirk destination group and drive' with [ENTER]. Move the cursor to group 1 on drive m. Press [ENTER] twice, then [EXIT]. Do not switch off or reset the machine until you have read the next step.

Loco 1&2: Now select a disc with plenty of space on it. Press [F1] for Loco1, or [F7] for Loco2. Now move the file on drive m back to drive a.

Alternatively, try erasing some unwanted files from your disc. When all the files that you don't want have been selected, press [EXIT] and clear them from the disc.

NAME AND NUMBER

I have today received my copy of 8000 Plus for September.

In the 'LocoPlus' section there is a side note for suggestions in hard print file-lists easily on a PCW9512. I appreciate it does mention CP/M and the reluctance of some LocoScript users to even load it, but if they follow the instructions below they will be presented with an alphanumeric list of all files on a disc, in user order, and with the additional helpful notes in size, records and attributes (i.e. RO or RW). So - LocoScript only users, swallow hard, take out your working copy CP/M disc and repeat after me:

1) Load CP/M - takes about 20 seconds! Make sure your printer is loaded with paper.

2) At the A> prompt press [ALT] and P together. This automatically prints everything in the screen to the supplied daisywheel printer.

3) Type the name of the disc you wish to catalogue.

4) Load the disc you wish to catalogue.

5) Type "dir [user=all]". Make sure every character in those inverted commas is the same as above. The machine will wait and a message "Scanning Directory..." will appear followed a short time later by "Sorting Directory". The machine will then print to the paper the following:-

Name Bytes Recs Attributes twice across the sheet of paper. It will then automatically list the files in alphanumeric order.

If it needs to stop it will do so, whether at the end of a sheet of paper or to go to another user group and issue instructions to press [ENTER] or "Paper please".

If you have a B drive you can basically do the same - except that the disc goes in the B drive and you type Dir h: [user=all].

Try it. I keep mine in plastic envelopes in a box file. There is a way to keep them on 8"x 5" index cards but you really need a dot matrix printer to do this and I'm quite satisfied with my system.

I have found this filing system particularly useful for the hundreds of clip-art files I have on MicroDesign. I hope that this will also prove to be of use to other readers of the magazine.

Frank D Lewis
Rowford

NEW DISCOVERIES

As one who purchased his PCW8512 from Dixon's and learned to use it from the old manual only time and experience has taught me the Golden Rule of word processing as distinct from typewriting:

"If you are doing anything twice you are doing it wrong".

At first, I typed out my address in my letters each time before I found that by typing TEMPLATE.STD in the appropriate place the PCW did it automatically. Similarly, I had a sheet of instructions to myself on how to set out chapters in books till I found the same magic set up each successive chapter in identical format.

Frequently used phrases can be saved, as many different sets as you want, and each appropriate set loaded for each type of document. Then Paste A, B, and so on, saves endless repetition. [CUT] and [PASTE], and Insert Text are used for longer bits even in different documents. [CUT] and [PASTE] stays in memory until you switch off the PCW; otherwise use Insert Text.

The apparently useless keys, [LINE/EOL], [DOC/PAGE], [UNIT/PARA] turned out to be great time-savers. For sub-headings in a chapter or long document use Plus U for Unit as you type in each subheading. This enables you to reach each subheading at least as fast as LocoScript 2 will gallup. [COPY], [PARA], [CUT], pressed in quick succession copies a whole paragraph.

LocoScript 2 remembers your commands (up to a point) so you don't have to await confirmation to appear on the screen. To copy a document to Drive M for working on is done by pressing [F3], [ENTER], right arrow, [ENTER], [ENTER] in quick succession. Working from Drive M has two advantages: it is considerably faster, and documents can be edited for which there is not sufficient space left on the disc to save. When transferring back from Drive M use the Overwrite option presented. All this is for LocoScript 2.

Dr Des Keenan
Wembury Park

Copy the file to Drive M and edit it there (faster, and saves wear and tear on the mechanical drive). Proceed to copy revised file to any drive or group. But if you prefer it in the same drive and group as the original, proceed as follows: with cursor in correct group, press [ENTER]. The details of the copy file will appear on screen. Insert the figure 1 before the filename. Press [ENTER] again. Your edited file will appear as, eg, 1TEXT, above original TEXT. If your filename is the full eight letters long, you will lose the final letter, but does this matter? This procedure can be repeated, and by deleting the "1" and substituting "2" etc while copying back, many versions of the original file can be retained in the same group, and you always know which is the latest. Unwanted ones can, of course, be erased.

Printing can be speeded up by copying the file in Drive M and printing from there. The hold-up in every page while the printer buffer is reloaded is eliminated.

The use of Drive M relies upon a constant supply of electricity, but should a blip occur you always have a copy of the original still on disc, and lose only your latest edit. If you fear frequent blips in your area save and copy frequently, any possible loss will be limited. I find the system works extremely well.

M R Maple
Brixham

COMPOUND SOLUTION

Last month, Liz Bruce laid down a challenge for someone to produce a program to calculate compound interest for any capital amount, at any interest and for any term of time. I've come up with just such a program! Load up BASIC (Readers can check how to do this by turning to our Listings section beginning on page 53) and type in the following:

```

10 INPUT "Enter the principle sum";p
20 INPUT "Enter the interest rate";i
30 INPUT "Enter the number of years";y
40 g=((1+i/100)^y)*p
50 PRINT "The gross sum at the end of period will be: ";
60 INPUT "Another calculation? (y/n)";a$
70 IF UPPER$(a$)="Y" THEN 10
ELSE END
Save the listing to disc, type RUN and off you go!
Ian Austin, Southsea

```

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You need PROFILE.PCW which, of course, won't work unless you change its name to PROFILE.SUB. It also needs a couple of CP/M utilities SET24X80.COM (to set the screen to the right size) and SETKEYS.COM on the disc so you need to know how to use PIP.COM. But if you get past these first, (admittedly pretty high) hurdles you will find yourself with an excellent tool both

for writing and programming. There were some slight glitches (such as uncased text containing error messages) but generally speaking, it is a solid and useful program.

Verdict: Not for the PCW novice

Pluses

- Packed with features
- Amazingly cheap

■ Ideal for programmers and computer buffs

Minuses

- Little help for the uninitiated

Features: 5/5

Documentation: 1/5

Performance: 4/5

Ease of Use: 2/5

8000 Plus Value Verdict 12/20

DATABASE - DBQ

If you thought that the Video Display Editor sounded frightening, don't even think about DBQ - the PD relational database from Advantage. If the relatively blank screen of the word processor sounds daunting, just wait until you face the DBQ> prompt!

Databases are one of the applications that beginners can always relate to. You put vast amounts of information into the bowels of the machine and you can extract them quickly and easily. That is what computers should do.

But this is one case where even an enquiring mind and a willingness to learn might not be enough. What you have to understand is that even when programmers try really hard to make databases user friendly they usually produce a nervous breakdown in one in every 10 users. While the concept of a database would seem to be supremely simple, the practice somehow becomes immensely complicated.

Far from being a good cheap starter program for the beginner, DBQ seems more the sort of thing that someone looking for a quite powerful, flexible set-up would enjoy. But it needs work.

It is in line with a proud tradition of terrifying databases. It follows the trend set by dBASE, where there are absolutely no on screen prompts or



DBQ is a very impressive relational database; this is its demonstration sequence

menus. You simply type in the suitable commands at the prompt and marvel at the results. For the results are marvellous. The whole idea of a relational database is really neat. In it, you can take information from two or more database files and relate them. Again, there is a macro type feature (this time, the more complex procedures and command file features). But it also means that you really need to learn what is, in effect, a programming language, before you can start to use the database. As with VDE, this makes the program very fast once you actually know what you are doing, but there could be a long plateau on the learning curve.

Admittedly the authors have actually gone to a fair amount of trouble to help you out. There is more than enough on the disc documentation - 64k of text covering more than 40 pages when you print it out.

With that amount of text it is difficult to find your way around but the writer has been kind enough to add in a multitude of examples.

Working and modifying examples is by far the best way to get to grips with this kind of program.

There is even a clever demonstration program that takes you through the process of creating files and extracting and relating information between two files. This is again ideal for someone who has an idea of what they want from a database, but it would still be of limited help to a beginner.

Pluses

- Packed with powerful features
- Examples in documentation and demonstration file useful

Minuses

- A very slow learning curve.

Features: 4/5

Documentation: 3/5

Performance: 4/5

Ease of use: 1/5

8000 Plus Value Verdict 12/20

SPREADSHEET - DCALC

Accounts for January 1988		
INCOME		EXPENSES
Fixed		Fixed
550.25 Salaries		700.51 telephone
123.45 Interest on Investments		57.49 electricity
500.00 Blockall		87.49 phone
6188.26 TOTAL fixed income		200.00 credit card repayment
		1038.61 TOTAL fixed expenses
Variable		Variable
8.13 Kickback		824.25 travel
30.44 Option Bond Prize		175.00 collection
25.00 Casino		175.00 fuel
651.14 TOTAL extra income		874.76 TOTAL extra expenses
TOTAL	8595.86	2315.85
BALANCE for month carried forward	-3744.13	
Expressed in £100s		

DCALC, the user friendly alternative for the beginner to spreadsheets

In stark contrast, DCALC, a PD spreadsheet issued by Advantage, is sheer simplicity to use. The manual stretches to a containable seven pages of text, and even this is a bit of overkill.

Obviously, it doesn't have the vast array of advanced features seen in other PD packages we have looked at, but in many ways this is an advantage. Even a

beginner with only a vague understanding of the idea of a spreadsheet could be using it in minutes. It has on-screen prompts and a delightfully easy method of working. A spreadsheet is a concept that non-computer people find difficult to grasp. And yet it is one of the most useful pieces of software that you will find. Put simply, it is like a piece of paper where you can list items and figures. Then you can automatically add up columns of figures, work out VAT or profit margins and so on. Change any numbers and the totals are updated automatically. Perfect for cash flow projections or household budgets.

DCALC obviously doesn't have all the functions that you would expect in a commercial package. But you can add, subtract, multiply, divide and total rows and cells - all the usual kind of functions that people would want to use.

Spreadsheets can be printed direct, or they can be exported as ASCII files for use in other documents. DCALC

doesn't have any fancy features to increase or decrease the size of columns but it does allow you to write text across four columns - usually more than enough for any heading. The working area isn't as big as some spreadsheets (60 rows by 26 columns) but it is still adequate. One drawback is that you cannot edit what you have written in a cell. To make any changes you have to delete the contents of the cell and write it in anew. If you make changes to text written over more than one column it can cause confusion.

Pluses

- Delightfully simple.
- On screen prompts

Minuses

- No editing of cells

Features: 2/5

Documentation: 3/5

Performance: 3/5

Ease of use: 5/5

8000 Plus Value Verdict 13/20

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Above all, Flipper 3 is easy to use. There's a menu system to make things simple, and a thorough manual to keep them that way. Even installing Flipper 3 is easy: it comes on a self-booting disk which you can back up and use immediately.

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Flipper 3 and Foreword both require at least 512K of memory: to use the programs together, or with non-legal CP/M programs like Mini Office and MicroDesign II, extra memory is essential. Both programs support current versions of Locoscript 2 - v2.16 or later - and all versions of CP/M. Hard drives, non-standard disk formats and foreign-language keyboards may cause problems - please check before ordering.

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Character Test

Now is your chance to design your own fonts using MicroDesign 2's clever font editor and a little imagination.

One of the most important features of any page design is the headlines. Careful choice of type face and type size all go to making a really well designed page.

Owners of MicroDesign 2 are pretty well provided for when it comes to fonts. There are 25 different font files provided with the program - giving a wide range of type size and styles.

But there are still times when you will find this choice is a bit limited. Modern newspapers depend on using big type to get really effective headlines.

Tribal newspapers think nothing of filling half the front page with three or four lines of 72 point text (or larger). If you want to try that trick you may find yourself limited by the fact that the biggest type size available to you on the MicroDesign disc is 27 point (and even then it is not a real headline typeface).

You can buy extra discs of fonts which add greatly to your choice. And there are some really big fonts which you use as graphics building up the lines of text a letter at a time, rather than as a standard font (we have already looked at these in an earlier tutorial).

Ability and patience

But Creative Technology, the designers of the program, have been thoughtful enough to allow anyone with the creative ability (and the patience) to create their own typefaces and even to produce larger type sizes of their own.

Now let's admit up front that it is unlikely that anyone is going to produce a totally original typeface. Many talented people have spent many, long years trying to produce a set of letters that will look different and original.

Type design must always be a compromise between imagination and practicality. Text, to be any real use, must be readable. And, by now, you would think that virtually all the readable options have been tried. And yet people still go on.

Type designing on a computer like the PCW is even more difficult. You have a limited space to work in and you must design the letter using the rather clumsy building blocks of pixels. Smooth curves and consistently thick lines become a problem. And when you have to increase the size of the typeface the problems multiply.

In fact it is probably surprising that there is such a wide variety of faces

available. But there are always improvements that could be made. A pixel here and there might make all the difference to a letter.

The printer's bluff

There are many examples of this in the typefaces available to printers today. Typefaces with different names may be virtually identical except for a tiny difference on the serif on the letter c or something equally unlikely.

This allows printers to make their business as obscure and exclusive as computer people.

With MicroDesign 2, changing individual letters to create your own, slightly modified type faces is sheer simplicity in the font editor.

However most people are not neurotic enough to be bothered by the

they all need to be a consistent size - the lines have to be a consistent thickness and there has to be a consistency of design all the way through.

This takes a fair amount of skill and a vast amount of time. Changing one letter takes a while. Changing 52 letters (upper and lower case) and all the punctuation marks takes a short lifetime.

If you do take on this PCW version of the marathon it is probably sensible to pick a font that already is quite close to your eventual design concept. It is much easier to adapt than to start from scratch.

And now the real reason

But there is an even more sensible use for the MicroDesign font design facility (pause while the reader gasps in amazement). You can use this neat little feature to make your text bigger.

DROP THEM A LETTER

The natural thing to think about when you discuss big text is for headlines in a newsletter or text in a poster or leaflet - great swathes of large letters.

But there is another interesting use for large letters - the famous 'drop cap', those vast capital letters so much loved by monk scribes in the middle ages.

Although they seemed to have gone out of vogue, the drop cap had had a revival in the trendier, more innovative publications (Oh look. There's even one on this page.)

This can naturally be done with any of the larger typefaces. But if you are only using a few drop caps in a publication it is possible to simply redraw the letters you want as big as you can and add them to the font you are using (you can save them instead of one of the punctuation marks you don't use very often). Then when you press S (or whatever punctuation mark you have chosen) a rather large A will appear. It might not be quite as fancy as the ones the monks did but it is still impressive.

shape of a blob on a letter c and may be looking for a more practical use for the type design facility.

Certainly if you had a company logo using an unusual typeface (logos are often created using combinations of various faces that may never be seen again) you could produce your own font to produce the logo and to write other text to match it.

The required consistency

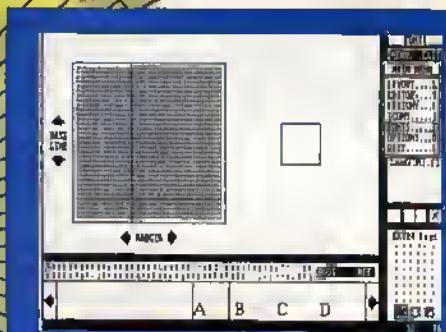
Some really distinctive effects can be produced using this method. One problem with this is that if you only have the letters used in the logo to go on it might be difficult to get the required consistency through the entire alphabet.

The same problem is faced if you try to create a complete typeface from scratch. The letters all have to look as if they go with each other. This means that

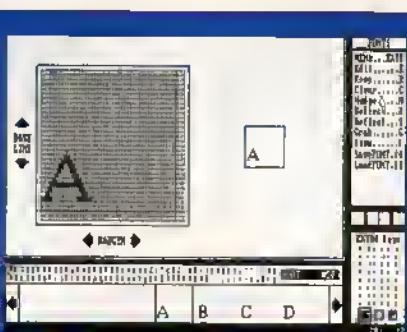
You will see that when you load up even the 27 point faces in the design section there is a vast amount of free space round about it that you can use for expansion. By looking at the way the small letter is produced you can easily multiply the size of the letter, while keeping totally consistent with the original design.

The reason for the grid on the editing box is so that you can consistently place, for instance, the cross stroke on an upper case A and E at exactly the same height by counting up the same number of pixels from the bottom.

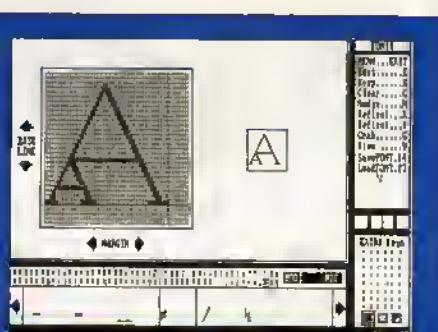
This, it must be admitted, still takes an inordinately long time but on the plus side it virtually requires no imagination at all and it costs nothing. If you were really keen you could produce a full range of type sizes in all your favourite type faces.



1 Picking a font to modify



2 Picking a letter



3 Modifying the letter

1 First find the Font section - the place where all this hard work takes place. From the Layout section press [EXIT] and then choose Fonts from the list of options. You can do this by clicking on it with a mouse or by pressing [F].

What you see is a panel a bit like the zoom screen in the Design section except that there are lines dividing up the pixels. At the bottom of the screen there is a complete set of tiny letters (upper and lower case and punctuation marks) and part of a bigger set.

Load up the font that you want to use as the basis of your new font, using Loadfont [f3]. Obviously some will be more useful than others. For instance a sans face like Helvetica (one without the little blobs on the end of the lines) would be more suitable if you are going for a modern looking face. A fancy script type face would probably be more useful if you were designing an arty type face.

2 Then pick a letter, any letter. Or, at least, pick the one that you think will be easiest to adapt. In this case we are using the standard BOOT font - the one that is loaded when you start up.

You will see that one of the tiny letters down the bottom is framed in a tiny little box. This is the selected letter. You can change the selected letter by clicking on another with the mouse or by pressing [RELAY] and using the cursor keys to move the box about.

When you have the letter you want press [E] for Edit and the letter will appear in the Zoom type grid and with an example of how the letter looks normally alongside.

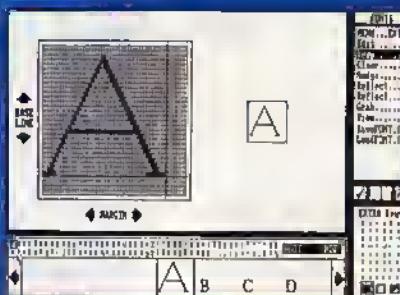
In the grid you will see two lines, a base line and a margin. As you are going to be increasing the size of the letter move these lines away from the letter using [SHIFT] and the cursor keys. The up/down keys move the base line and the left/right move the margin.

3 Now to start playing about with the letter. You will see that the left hand leg of the letter A happens to be two pixels wide and the right hand side is three pixels wide.

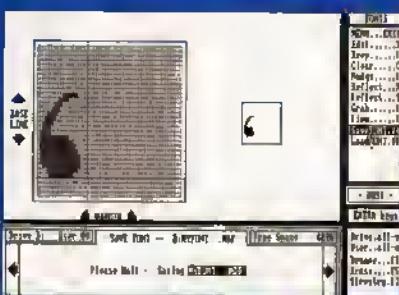
Now you can just keep this as a standard (giving you thin, graceful lines) or you could increase the widths by a set factor. For instance make the left leg three pixels and the right leg four.

This is where a mouse is really useful. You can do it with cursor keys but it does take time. To change the letter all you need to do is click on the pixel you want. If you want the pixel turned to white you need to choose the white ink option [[EXTRA] and the down cursor key]. For black press [EXTRA] and [RELAY].

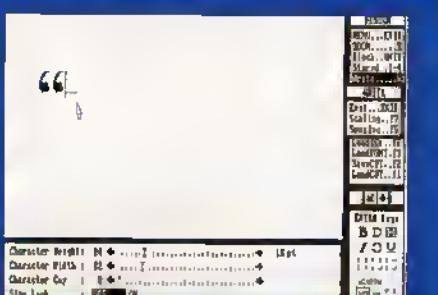
You can do the same thing using the cursor keys and the Space bar to click on a pixel. By logically following through the process you can pretty quickly produce a bigger version of the 'A'.



4 Deciding on measurements



5 Saving a new font



6 Getting double quotes

4 It is worthwhile at this stage deciding on what height to make the letters and at what position to put the various elements. Here, for instance, the cross piece of the 'A' is placed at the height of the old letter. This can give you the consistency you need. You can also decide on how many pixels make up a serif for instance.

Once you have the letter complete you can save it as the first in your new, bigger font. By pressing [K] for Keep the newly adapted letter will overwrite whatever the chosen letter is.

In this case it is sensible to overwrite the old capital A but you could, for instance, have two versions of the letter - one kept in the correct place and one under a punctuation mark you don't use very often.

With this method you could also design special scientific characters or any foreign letters you use regularly.

5 Now go on to do all the rest of the letters - well at least while your patience and your eyesight lasts. As you keep each letter you will see them all displayed in the bottom line of letters allowing you to compare how they look against each other.

If you are keen enough to do all the letters you will probably need to do a bit of work on some of the punctuation marks. For instance the single and double quotes marks are particularly useful for newsletters where you want to pick out a quote from a story - drawing attention to it with massive quote marks. Remember that MicroDesign 2 allows you to use opening and closing quote marks (66s and 99s as they are known).

Start with the single quote mark and then save the font file [f4]. Remember to use a different file name or your BOOT font file will be permanently changed. Why not try MYFONT as a name.

6 Although it is pretty easy to get the single quote mark right it is considerably more difficult to get double quotes with both characters exactly the same, freehand. But luckily MicroDesign 2 helps you out here too.

Go into the design section and load MYFONT.MDF. Now if you press [ALT] and [6] you will see your newly created single opening quote mark. Type in two of these, one beside the other, and what you have is a ready made double quote mark - with both characters exactly the same.

To get this into the Font section you need to use Grab - a clever little feature that allows you to Grab any part of the Design screen and use it as a letter. So you could play about in Design trying to draw letters freehand.

Or, if you have scanned in a logo, which contains specially designed letters, you could use Grab to add these designs to your own font file.



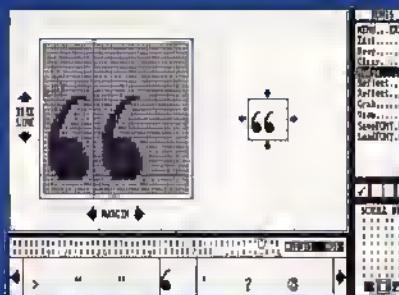
7 Grabbing letters

7 To do this you have to go back to the Font section [EXIT] and [F]. Now select the double quote character in the small letters at the bottom ([RELAY] and the cursor keys). Then press [G] for Grab. The screen clears of all its usual stuff and you find yourself back in the Design section where you just left it.

On the screen there is a box which you can move about using the cursor keys. Move this to cover the two quote marks. Don't worry about the exact positioning. You can sort this out later.

Press [RETURN] and you are mysteriously transported back to the Font section and the main box is now filled with the double quote mark you grabbed.

Remember to adjust the base line and the margin to go outside the new character or the part of box that comes outside the lines may be lost when you [Keep it]. You can see when it is right by looking at the example box.

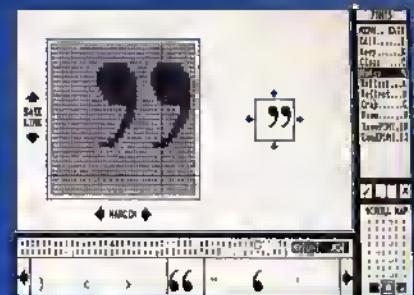


8 Nudging to the right place

8 One problem may be that the characters are not exactly in the right spot in the frame. You will see this more clearly when you see it in the Zoom type box. In fact, although the grid does make it slightly more difficult to place the pixels it does mean that you can easily count off the number of rows from the base line or whatever to make sure your characters will all come out evenly.

This can be cured using Nudge, a feature in the Font section that allows you to move the character about inside the box. Press [N] and little arrows appear round the box that shows the finished version of the character.

Now you can move it about using the cursor keys in any direction you want. When you press [RETURN] the Zoom type box will update to show the correct position. If it still isn't right press [N] again and have another go. It is best to move a little at a time.



9 Getting mirror images

9 So now you have the sixes and 66s - the opening quote marks. But it is just as easy to get the nines and the 99s (yes, that's right the closing quotes) by using the Reflect commands. This simply reflects the letter or character to give a mirror image.

[X] reflects the quote marks on the X axis and [Y] reflects it on the Y axis. If you don't know your X axis from your Y axis this is a great time to find out. You need to use both [X] and [Y] to get the closing quotes to the right position.

Do the same reversing process with the single quote, saving them to their correct position and save it all under MYFONT (Yes. You do want to overwrite the old file - so press [Y]).

To use these in the program press [ALT] and [6] for a single opening quote marks and [ALT], [SHIFT] and [6] to close it. [ALT] and [2] and [ALT], [SHIFT] and [2] do the same for double quote marks.



10 Using a drop cap

10 Now to use some of these in anger. What we want to use the quotes and drop cap in a box in the middle of a page. Go into the Layout section and set up the page in Setwindow [W], to have three columns.

Now choose the Design section [D]. Place the box in the middle of the page overlapping where you saw the first column guideline in Setwindow.

Choose [W]rite and then put the column guides on with [EXTRA] and the downward cursor key. Then, simply, move the hairline cursor up nearly to the column guide line.

With MYFONT.MDF loaded press [ALT] and [2] for opening double quote marks. Move the cursor down slightly and then press [SHIFT] and [A] or whatever letter your text starts with.

New load whatever font you are using for your body text - in this case we are using the old BOOT.MDF.



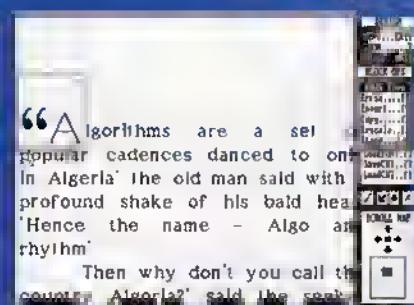
11 Preparing the text file

11 Go into the text editor ([EXIT] and [E]) and load your text file ([F5]) and pick the correct file name. Then simply remove the first letter of the text and make sure there are no spaces at the beginning of the file.

Flip back to the Layout section ([EXIT] and [L]). You should see your quote marks and your drop cap in the middle of the page. Press [T] for Typeset and move the cursor until it is alongside the letter A. Don't place it too close to the capital letter or the text might overwrite it.

Press [PASTE] and your text will fill up the column very neatly. If things go wrong you can undo the text and start again but this is inclined to obliterate bits of your quote marks and/or the drop capital.

You may want to save these as a .CUT file so you can easily reload this part of the page if things go wrong. Until you get used to how to place the text, things can go wrong more than once.



12 Tidying up

12 Now all you need to do is tidy up things in the Design section. Press [D] and move to the top of the column. If you are lucky the text will have started at exactly the right spot. If not you may have to use the Block command ([UNIT] and [F3]) to move the quotes and capital letter as a block into the right place. Watch you don't overwrite text.

If you have saved it as a block you could even place the text first and then add the quotes and capital later but this is slightly more difficult to position properly.

Finally if you are nervous you could use the [W]rite feature in the Design section to write in the first paragraph of your story to make sure the lining up of the text is just right.

Don't forget to add the closing quotes mark at the end of the story ([ALT], [SHIFT] and [2]). Then put a box round the whole thing so that you don't overwrite it when you put the rest of the text in place.

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On Location

The PCW can help to make your home videos the best in town!

Karen Donaghay talks to writer and movie-maker, Geoff Stafford

Movies are about movement," says Geoff Stafford. "I aim to get people using long shots, medium shots and close-ups. This is how you really start to make a movie."

As a handy piece of advice, this is just one of a selection that Geoff Stafford has on the tip of his tongue. He can talk for hours about movie making – the merits of camcorders over video recorders, the art of shooting against

props, such as plastic legs and arms. "I thought they would be good for thriller movies," he said with a laugh. But what dominates the room is his equipment: a large video screen and camcorder at one end of the table and at the other end a PCW9512. "The PCW is great," he told us. "I use it the whole time."

Room with a view

And there is plenty of work to prove it. We are shown the opening shot from a video. The picture is of a summer garden and the title says, "The Four Seasons" in big lettering. It could be the introduction to a TV programme – a gardening series, perhaps – and at first the connection with the PCW is not obvious.

On closer inspection, the lettering looks rather familiar. Could that be the MicroDesign font known as Times 75? And if so, how did it get from the PCW to the TV screen?

Geoff goes swiftly into action. The DTP program, MicroDesign is loaded. "The Four Seasons title was created using Times 75, one of the area fonts," explained Geoff, and with some deft movements of the mouse, the title is slowly reconstructed on the screen.

"Actually, I got a good tip out of *8000 Plus*. I used to use block copy to pick out the letters I wanted. Now I save each individual letter as a cut. Then you can just bring these up as cut files. That saved me an awful lot of time."

These fonts come from the MicroDesign fonts disc and Times is not the only one that Geoff uses.

"My favourite font is *Guardian*," he told us. "I like to like to stretch, squash and generally play about with words so that they fit into a square or rectangle."

After designing the logo, it is over to a Star LC-10 for the printing. "I called Creative Technology for some advice," Geoff told us, "and they recommended a 9-pin printer. Apparently, there are few advantages to using a 24-pin printer, at least as far as MicroDesign is concerned. I bought an LC-10 and have nothing but glowing reports of it."

True to form, the LC-10 produces a clear printout of the title which is now ready to be put into the video. We move over to an imposing piece of technology: Geoff's camcorder. It is a Mitsubishi C50 and is one of the latest models.

Now, we computer journalists are no strangers to technology. But camcorders – that was a completely different matter. In fact, we had to admit that we didn't actually know the difference between a

video camera and a camcorder.

"A camcorder is a combined recorder and camera," Geoff explained. "Ten years ago you would have a separate camera, which would have been bigger than a camcorder is now. Then you would have a portable video-recorder. Now, it's all combined into one."

So now that we knew what it was, we settled down to watch the amazing camcorder in action. We were about to witness a fairly new development in video technology, as Geoff explained.

"At one time, you would get a little keyboard with a video camera. Then you could type in any title. But, they didn't look very good, and people didn't like them very much. A few years ago, a new way of entering titles was developed. It allows you to super-impose your own title on top of the ordinary picture.

Geoff took the printed MicroDesign page and pointed the camcorder at it. The image was displayed on the TV screen.

"Basically you get a printout of the title and focus on it. You press the memory button, and the camcorder memorises the image," he said.

Even we could understand this. Then Geoff took some ordinary video footage and pressed a button to super-impose the stored title over the standard video shot. It all seemed quite straightforward.

Now we were deemed ready for something more complicated. "You have different effects," explained Geoff. "You can give it an outline for example. There is also what's called scrolling. That means that when you press the scroll button, the writing can move across or up the screen."

Seen in action, this scroll effect looks like the standard TV credits that come up at the end of every programme and it is a feature that is sure to impress anyone who watches home videos.

Effective action

Next was the special effects department. One of these is to create a shadow behind the title, to create a rather three dimensional effect.

"What I do to create a drop shadow is to super-impose it in black when I first record it. Then I store it again, but move the image slightly. The second image can be super-imposed on play back," Geoff told us.

Of course, the general technique is also flexible in terms of subject matter. Anything that you can design and print out using a PCW can be super-imposed,



Geoff Stafford: "I'm not into computers just for the sake of it but I suppose I have quite a good technical knowledge of the PCW"

bright backgrounds – you name it, and Geoff Stafford knows the answer.

This comes as no great surprise. Geoff started experimenting with home movies at the age of thirteen. It developed into a passion and he went on to study Communications Media at Manchester Polytechnic. This in turn led to writing.

"I was reading a magazine one day. It was a film magazine called *Making Better Movies* and I thought to myself, 'I could write that', so I did. The first article was held for nine months before the editor contacted me. And, much to my surprise, they said that they would love to use the piece. That gave me a big boost."

Geoff is now a prolific writer. He writes for two leading video magazines and one of his recent articles dealt with how to use a certain computer – the PCW9512 – to make your videos more professional and interesting to watch.

How indeed? We were eager to find out more. And luckily Geoff was only too pleased to tell us all about his video work and how the PCW helps.

"Come up to the office," Geoff said and led us into a room adorned with

Film facts

Camcorders cost anything between £600 and £2000. To use the technique described in this article, your camcorder will need to have a digital title super-imposer. The camera that Geoff used, the Mitsubishi C50, also allows you to put outlines around the title and super-impose the title during playback, rather than during the initial recording.

using this technique, on to a video. The speech bubbles, so beloved of comic strip cartoons, were the first thing that sprang to mind. But, of course, the potential uses are endless.

And this could provide a great excuse for Geoff to get more involved with MicroDesign 2. "Inside me is a frustrated designer, trying to get out," said Geoff. "Officially I bought MicroDesign to use in my business. Unofficially, I thought it would be brilliant fun. I get a great deal of pleasure from sitting for a hour or two, drawing on the screen.

"I've learned a lot about layout and spacing letters – to leave more space between vertical letters than between a vertical and a round letter, for example. If you've got two 'o's you can put those very close together. If you've got two 'i's you need more space between them.

"I like MicroDesign 2, but I do think that some of the fonts could be a bit better. In particular, the idea that you can take a 'b' and turn it round and it becomes a 'p'. Or a 'q', or a 'd'. I just don't subscribe to this at all because those letters should all be different. They should all have different serifs."

There is a solution on the horizon, however. "What I want is a scanner," said Geoff. "I want to be able to scan in my own fonts."

But although he looks forward to adding new extras to his PCW, Geoff views his machine primarily as a work tool. "I'm not into computers just for the sake of it," he said. "I suppose I have quite a good technical knowledge of the PCW, but I only go as far as I need to."

Early days

Even so, this is a far cry from his early experiences. "I knew absolutely nothing," he said. "I remember going into a shop and saying to the assistant 'Why should I buy a word processor?' And the guy didn't have a clue and started talking about games and things.

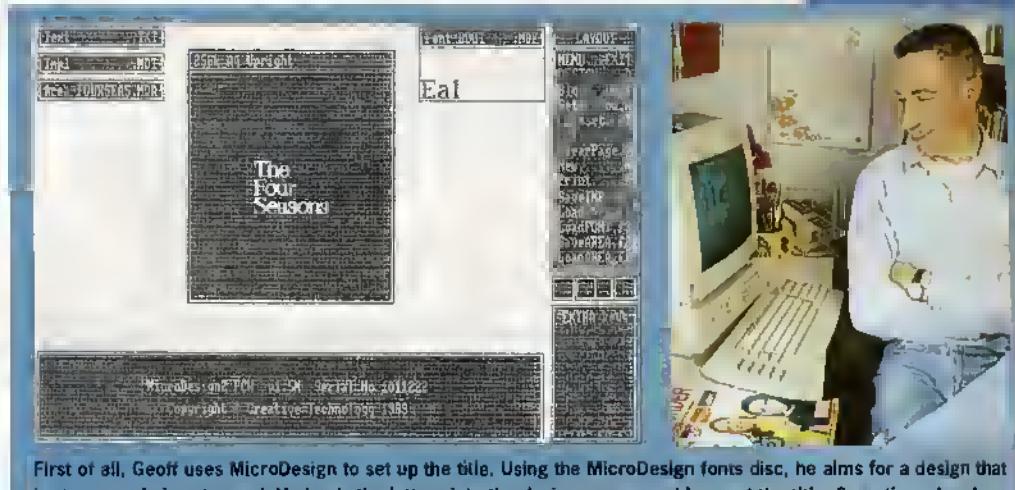
"When I asked what was good about the PCW, he said that you could leave the discs on the floor and – if you stood on them, it wouldn't do any harm!"

Geoff wasn't impressed by this advice. In any case, it is hard to imagine this tidy office littered with stray discs. And so he ignored the salesman and went off to do his own research.

"I'm always like that. I never run out and buy something, straight away. I started to buy your magazine, and I finally decided to get an 8512. Just as I was about to buy it, I read in 8000 Plus that the 9512 was coming out. I wanted a daisywheel printer, so I had to wait for another three months and I've never regretted my choice."

Geoff's PCW has now been enlisted for a new project – to write a book on video technique. "Making home movies has a very long history," was his parting shot. "Some of the world's best filmmakers started off as amateurs." Could Geoff be the Steven Spielberg of the future? We'll be watching his progress!

How to super-impose captions



First of all, Geoff uses MicroDesign to set up the title. Using the MicroDesign fonts disc, he aims for a design that is strong and clear to read. He loads the letters into the design screen and lays out the title. Sometimes he also stretches one part of the title so that it fits into a neat box, as you can see from the next step.

The
Four
Seasons

HOLIDAY
1991

The above picture shows two of Geoff's titles printed out on his much prized Star LC-10 dot matrix printer. The holiday title is written in the Guardian font.

To create a symmetrical look, Geoff loaded the date below the top line.

Then he chose the option in the design menu to Rescale. This allows you to draw a box over the lower

line of text and pull that box across so that the text is in line with the upper line. Since the date 1991 is a very symmetrical piece of text, the result looks very professional.

The other title, 'The Four Seasons' is written in Times 75 font from the MicroDesign fonts disc (available from Creative Technology).



To store a caption for later use on a screen, all you have to do is to point the camera at the printout from the PCW and press a button. By doing this, the handiwork of MicroDesign is recorded in the camcorder's own memory.

Then the title can be super-imposed on to any scene while it is being filmed.

This technique can be extended to produce a variety of different effects. The two shots above both use the same title, but the shot on the left uses what is known as a black drop shadow.



This is created by saving the title twice, once in black and once in blue. To make sure that the two images do not completely overlap, the page is repositioned slightly for the second shot.

The other title (shown on the right) is rather more simple. It is a plain red title and the white outline is added automatically by the camcorder.

The plain background was created by shooting through a rectangular hole in a card. This background can be made to look blue by shining a low-level lamp on to the card.

Hints & Tips

● Step 1: The keyboard unit comprises a large number of small items, such as screws, springs and keys. One way of keeping control of these is to mark out sections on a large piece of paper. Put the paper on a flat surface, out of strong draughts, and put the screws on that. Label them 'Casing screws'.

● Step 2: Give these screws a new section on your paper, and call them 'Circuit board screws'.

● Step 3: The clips are arranged so that some face one way, and some the other. The tension this creates means that the board stays firmly fixed in place. It also means that it is very difficult to remove. The best way of doing it seems to be to start at one end, and work your way along to the other. Alternatively, get a friend to help!

● Step 4: Don't forget to clean the cable. It seems to collect a lot of grime.

● Step 5: If you've been keeping things in order on a sheet of paper, you will also want to keep the keys in order. Draw a large picture of the keyboard on the paper, and place each key in its correct position. Don't worry too much about the springs - you can jumble them up as much as you like. Just don't lose them!

The Board Walk

Sticky keys? Incomplete letters? Martin Le Poidevin opens up the PCW keyboard, and shows you how you can clean up your typing!

Spare a thought for your keyboard. It is the forgotten go-between in the battle between the human and electronic brain. When tempers get frayed, it is no wonder that it resembles the Somme on a bad day.

Making it a cup of coffee or giving it a few crumbs of your tuna sandwich doesn't help either - in fact, that is all too often the cause of the problem.

But now, given a spare hour or so, you can give something positive to your keyboard: a good wash and brush up.

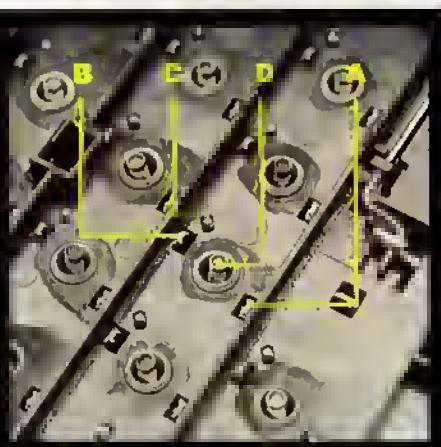
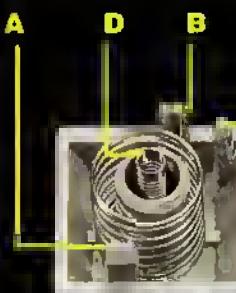
The beauty of this job is that it is very easy and requires little in the way of equipment. It can also take several forms. The pictures below illustrate 3 or 4 separate stages of cleaning; you can choose to do one or more of them. There's no need to clean all the keys individually, for instance, if all you want to do is mop up a little coffee spill in the area of the [ENTER] key.

On the other hand, it pays to be circumspect - don't dive into your keyboard too often. Some of the components are quite fragile, and might not appreciate the attention you feel like lavishing on them!

Indeed, if your computer is still under guarantee or warranty, it is probably better not to open it up at all. Doing so may break the terms of your contract, and leave you uncovered if something more serious should happen to keyboard or computer later.

If you do decide to go ahead, however, the equipment you will need is

KEY CLOSE-UPS



The keys are the heart of the keyboard. On the left is a close up of a single key, with the clip stems (A and B), the guiding lug (C) and the inner spring (D). Notice also the outer spring around the main stem. On the right is the key in position on the black holding board, with the same components marked. To release the key, squeeze A and B together.

as follows: a Philips screwdriver, some cotton buds, a clean, soft cloth, some white spirit or cigarette lighter fluid and a can of switch cleaning fluid. Also useful would be a pair of tweezers and a large sheet of paper or two.

As you can see from the pictures, we used an 8000 series keyboard for this article. If you own a 9512, though, do not despair. You will find that once you get inside that keyboard it is very similar to the 8000 series. The problem is getting inside it!

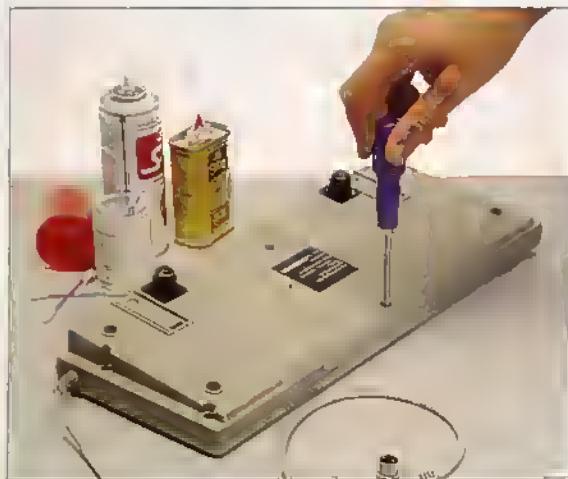
There are no screws in the 9512 keyboard. Instead, the case is clipped together with 12 clips. These are similar

to those holding the metal plate in place, but are on a much larger scale. Undo these, and remove the back casing.

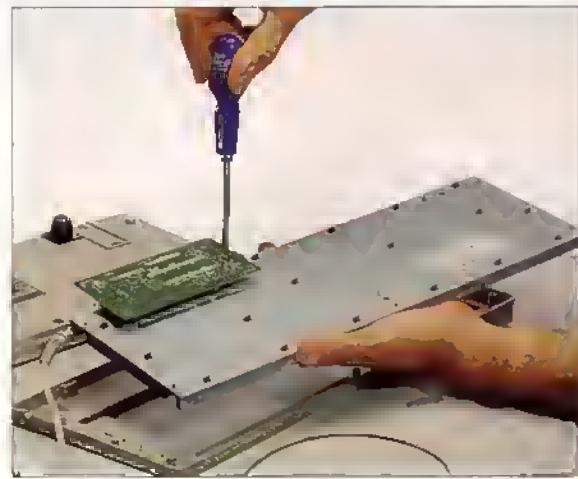
The next difference is that the circuit board is clipped into the casing **below** the central unit as you now look at it. Gently lift up the central unit, locate the board, and slowly unclip it. Remember to handle only by the edges.

Now you will have a unit which looks very much like Step 3 below. Simply follow the steps from there: reassembly is the reverse of disassembly.

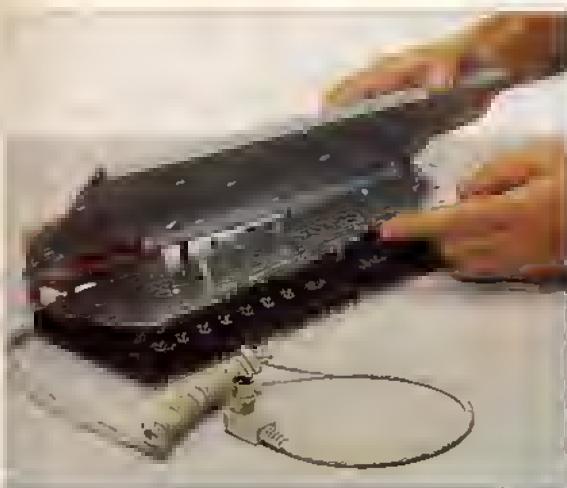
So why not give your keyboard that treat - and do yourself and your computer a favour at the same time!



1 Choose a well-lit, uncluttered work space and detach the keyboard from your computer. Turn the keyboard upside down on the work surface and locate the six screws which hold the unit together. Remove these together with the bottom casing. Lift up the central unit which houses the keys, and remove the top casing. The whole of the outside casing can now be cleaned.



2 You will be left with just the central unit. On top of this you should see a circuit board, held on by two screws. Undo these, put them to one side and carefully move the circuit board over top edge of the keyboard. It will not yet come free from the unit, so don't try and force it. When handling the board hold it only by the edges, and just blow any dirt off it. Do not touch it.



3 You should now be looking at a metal plate. This is attached to the rest of the unit by 18 clips. Each in turn needs to be pushed through the plate, making sure that those that have gone through remain in place. When all of them have come free, the metal plate will come free, exposing a plastic 'sensor sheet'. Carefully remove this - the circuit board will come with it - and clean it very carefully. Again, do not use fluid.



5 Now you can clean all the components. First of all, clean the black holding board. This is likely to be very mucky, so use as much fluid and vigour as necessary. Now turn your attention to the keys. These will probably have accumulated a great amount of ingrained dirt. Use a cotton bud doused in white spirit or lighter fluid to do the cleaning, and make sure you get all the dirt off. When you have finished, leave the keys to dry.



7 Every now and then it is a good idea to lubricate the keys. Do this when you have fitted them back into place. From the back of the unit, take each key in turn and depress it so that it stands proud of the back holding board. Put a little of the fluid as far up the stem as possible. Release the key, and the lubricant will flow round the stem. Wipe away any excess with a cotton bud.



4 Now you can remove the keys. Examine the pictures opposite before attempting this - tweezers are a good idea. The keys will want to fly off, so make sure you don't lose them. In particular, keep an eye on the springs around the outside of the key stems. Three keys have extra steel spring fittings on the back - these come off quite easily. Take special care with the [SHIFT LOCK] key fitting, which will come away from the board.



6 Now reconstruct the keyboard. This is much simpler than taking it apart. Make sure that each key has a spring around the stem, and then push the key back into place. If you have not kept the keys in order, this will be one big jigsaw puzzle - it might be an idea to keep a picture of the full keyboard by your side. Before fitting the [SHIFT LOCK] key, slip the small light fitting back into place. Don't forget the extra metal springs.



8 Position the key unit inside the top of the outer casing. Carefully position the plastic sensor sheet over the back of the keys. It will only fit one way round. Keep the circuit board out of the way while you clip the metal backing plate back into place - again, it will fit only one way round - and then screw the circuit board into its position. Finally, refit the bottom casing.

Hints & Tips

● **Step 5:** After a lot of use, you may well find that the legends on your keys are fading. If so, you can touch them up at this point in proceedings using a permanent black pen which has a very fine point. Check first that pen doesn't adversely affect the plastic, then simply touch up the keys that need attention.

Lightly varnish each key with artist varnish to protect the new ink layer.

● **Step 7:** Use the tube which comes with the canister to ensure that the lubricant reaches only the parts you want it to reach!

Changing key

It could be, though, that your keyboard requires something more than a clean. If so, there are two possibilities.

One is to renew specific parts of the keyboard. CPC Spares, at PO Box 158, Preston, Lancs (0722 555034) can provide most parts of the PCW keyboard. It may well be time to treat your computer to a new set of keys.

Alternatively, you could buy a completely new keyboard. Pan Euro, 8 Craven Court, Warrington, WD2 8QU (0925) 234170 will give you details of the highly recommended Teqline keyboard.



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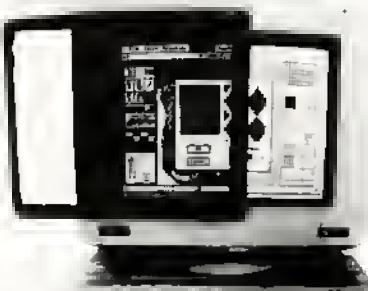
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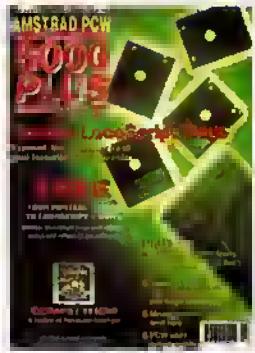
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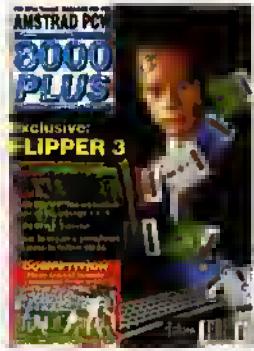
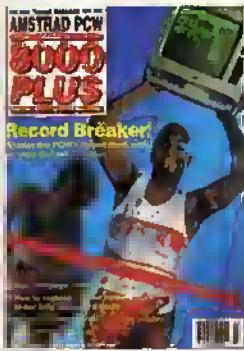
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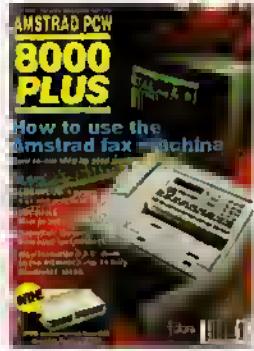
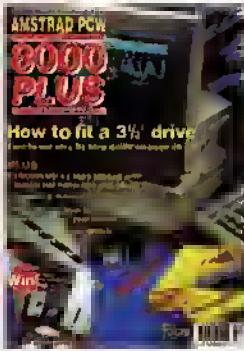
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Beginners' Guide

Programming for beginners? Tim Smith looks at three popular languages which could help the novice to get started

Talk to me!

As well as the languages we have featured here, there are others which can be used for the PCW. These are varied in difficulty and accessibility. While we recommend that complete beginners try experimenting with the three languages in this feature, you may want to investigate some of the following later on in your programming career. So, keep your eyes and ears peeled for Fortran, Firth, Pascal, Lisp, Prolog, Cobol, Assembler and Modula - all of which can be used on your PCW!

Programming is an activity which often has three different effects on people: fear, indifference or fascination. Fear because there is a lurking assumption that you will in some way damage your machine if you put in the 'wrong' piece of code. This cannot be done. Although you might 'lock up' your PCW (this means to stop it being able to continue with what it is doing) on some dramatic occasions it will even mean that you will not be able to enter anything via the keyboard. If this happens then simply restart and try to find out where you went wrong) but locking up does not mean that you have in any way damaged the PCW.

Indifference because, well who needs to bother with all those numbers, and aren't you quite happy using your PCW for producing the odd letter and report from LocoScript? French is too difficult so why waste your time on a language which no one actually speaks? That's all well and good, but haven't you realised that you are losing at least 50%

of value from your investment in a PCW? Think about that the next time you skip past the listings pages.

Fascination (which can sometimes verge on obsession) occurs, because once programming has its hooks into you, a world of logic problem solving, achievement, money saving and self-satisfaction (in the best sense) is open to you. If you like puzzles then you'll love programming. If you enjoy planning and organising, then programming is also for you. And once you have the basic principles within your grasp, you will have both a better idea as to how your machine works - and you will feel more comfortable with it.

At its most basic level, programming is a pleasure in the same way as puzzle solving, cooking or gardening. Even more so when you think that once you have finished with the crossword, word search or jigsaw, then that's it. When you have finished with the meal, you are left with a pleasant taste and all the washing up. When you have finished

with a program you have produced something you can use again and again, and even build on. A simple pleasure which looks complex at first, programming is in fact made up of very basic factors which when grouped together can seem horribly complicated. This need not be so.

Frankly, if you can learn how to use LocoScript, you should at least be able to have a bash at programming. The best thing to keep in mind is that you can do no harm by it - you can only achieve things. Yes, for the more cynical among our programming readers, we are aware that you can create viruses if you are that way inclined, but we are sure that most of you would prefer to produce work that is a little more constructive.

Now, on to three programming languages which the beginner may be interested in using. The first two, Mallard BASIC and DR Logo (the DR stands for Digital Research, the company which created both Logo and CP/M by the way, and not Doctor as is popularly

THE 8000 PLUS JARGON BUSTING GUIDE TO PROGRAMMING

Although we are dealing with three different programming languages, there are common factors which unite them. In fact, the terms which we will list below are common to most programming languages you could imagine.

They form the basis of all programming, and if you can look at them in the light of a patient teacher (that's you) educating a not very bright child (the PCW) with some very simple commands (the programming language) then the whole operation might well appear less complex than at first glance.

Code:

Most programmers will talk of their programs as **Code**. All this means is the lines which have been written using a program language.

A variable:

The heart of most programming languages, variables can be difficult to get to grips with. There are two forms of variable: Numeric and String. The latter can be text or number (although you cannot carry out calculations using the numbers held in a string variable). Try thinking about a variable as if it was a

pint glass. If you put beer in the glass then it's a beer glass. If you put pens in the glass, then it's a pen holder.

Essentially, a variable is the foot soldier of the programming world. For more details of how variables work in action, see the next section.

Loop:

A loop consists of a set of instructions which are repeated or which only occur when certain conditions are met.

For example, a password loop could run like this when you plan it: Enter the name (in the form of a variable which before the name is entered is empty). You will have another variable which contains the correct name as well. You tell the program to see whether the new variable matches the one containing the correct password name. If it does, then it's all well and good and the user can pass on. If it is not, you might like to give the user another two attempts.

At this point you tell the PCW, via the programming language, that if the new name does not match the old name, it should loop round again and ask for the name again. You can even set a counter in the form of a numeric variable and

then tell the program that if the counter has not yet reached three, it should continue asking for the name. But once three has been reached and the correct match has not been made, the program should print out a message (held in yet another variable) which says "Unauthorised Access. Go away!". You can then shut down the computer.

So, to escape this loop, there are two options: either get the name right (match the two variables) and continue, or get the name wrong and go no further.

There are numerous activities to be carried out using loops; boring calculations, screen graphic fills, checking to see whether a detail is held in a database, and so on.

Subroutine:

Have you ever looked at one of the listings which we print every month? (printed this month on page 53). Why not have a go at typing one in and see what you really can do?

One of the most oft used words you will see there is **GOSUB**. This actually means, **GOtoSUBroutine**.

A subroutine is an element of a program which, while required for some

thought!) come free when you buy your machine. The third, called C (because it came after A and B!) is more complex - and has to be paid for.

Mallard BASIC

Free

Look at the system discs which came with your PCW. On the CP/M disc you will find a file called BASIC.COM. This, and other variations of BASIC, is the programming language which has launched the careers of most amateur and professional programmers.

In order to get things started, the first thing you must do is to make a working copy of the system disc, load up CP/M and type **BASIC** at the A> prompt. The A> prompt will then disappear, leaving you with two letters, **Ok**, waiting on screen. This is BASIC seeking your instructions. Type in the following:

```
30 FOR n=0 TO 7:PRINT FNsc$(45,n+15);b$(n):NEXT
1
63C
40 FOR a=0 TO 7:bin$=b$(a):1=LEN(bin$)-1:GOSUB
310:b(a,count-1)=dec:NEXT
21B0
50 MEMORY &HBFFE:FOR x=&HC070 TO &HC098:READ
pk:POKE x,pk:NEXT x
206E
60 DATA 243,62,129,211,241,62,130,211,
```

This is an example of a typical BASIC routine. This particular routine was featured in the listings pages of last month's 8000 Plus, and enables you to redefine characters in CP/M. The program is called **Designer**, and was written by 15-year old Tom Pearce

PRINT "Hello oh master. What is your bidding?" and press [RETURN]. The message will appear on screen, and you will have written your first program! It really is that easy!

when it was originally developed a small electronic robot which looked like a robot was intended to be controlled by the language as it skidded across the floor of classrooms. Logo is a great

BASIC was written with the intention of it being a very portable language. What this means is that, while there are many versions of BASIC in circulation (much in the same way as there are many dialects of English, from Geordie to West Country), they are all essentially the same language, and programs written on one machine can be used on others with only minor tweaking. BASIC was also written to be very easy to use.

DR Logo

Free

Digital Research's Logo language is far more visual than the other two we are looking at here. The main reason for this being that it was written for children, and developed by a child psychologist, Seymour Papert. Logo makes use of a screen element called a turtle because

language to get started with. It contains all the elements of the more complex languages but you can see immediately, and with some graphical charm, just what you are doing as you do it. There are also fewer commands and ideas to take on board when getting to grips with Logo. If you wish to get going with programming, this is probably the one to aim for; it is both fun and satisfying.

C

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This is the big league. C has been the flavour of the month in programming circles for several years. Many programs you will run on your PCW have been written in this language. In fact, one way of putting yourself off programming could be to start with C! It makes use of what are called Function Libraries, switches, bitwise operators and other seemingly impenetrable elements. However, it is extremely versatile, powerful, and, once you've got to grips with it, it is also highly fulfilling as a skill. The best advice is to feel your way into programming with something like BASIC or Logo and then take the plunge into the C! In development C was based on the UNIX operating system - like CP/M except more complex. It was not written with beginners in mind by any means but it is well worth having as a target to aim for in your programming ambitions. The Hisoft version of C is also an excellent implementation of the language to get started with, and, to back up the well written manual, there are even a few introductory routines to help the beginner along the way.

Basic rules

As we have already mentioned, 8000 Plus has a regular four page section every month, devoted to BASIC type ins. This is the ideal way to start practising your skills - albeit typing in someone else's work. We have recently set up a section especially for beginners, entitled **Starters' Orders**. This features a short program for you to type in, and is designed to show you just how easy it is to get started in BASIC! This month's program enables you to print numbers down the left hand side of a page - useful, say, for planning a diary of events. If you are bitten by the BASIC bug, why not send your programs to Martin Le Poidevin, Listings, 8000 Plus, 30 Monmouth Street, Bath BA1 2BW. You could see your work in print!

aspects of the program's functions, is not required all the time.

A good example of a Subroutine is something like the password loop mentioned earlier. Ideally you will only need to use that loop once in a session. So, you tell the program to print a welcome message, and then to make sure that the right person is using the program, you tell it to GOTO Subroutine which contains the password.

At the end of every Subroutine there should always be a command telling the program to return the user to the main program. Like loops, there are many forms of sub-routines. In fact, a number of programmers swear by them as a means of keeping a program clear and concise. Rather than having a huge great block of code, it is easier to read and debug if it is split into easily noted subroutines.

Remarks:

Important things, Remarks. They can help when you come back to a program after a few days' break and attempt to remember what on earth it was that you were doing in the first place! They are merely lines of text which the program ignores completely, but which serve to tell you

what certain bits of a program does. For example, before the subroutine containing the password loop (see how these things build up from simple constituent factors?) begins, you could write a line in a BASIC program which says **10 REM Password routine starts here**. And at the end of the loop you write: **50 REM Password routine ends here**. Using the C language you would do it like this /* password routine starts here */ and /* password routine ends here */.

Bugs:

Always remember that, unless you have made a Faustian pact or you are extremely lucky, there will always be bugs in the first few versions of your program. In fact programming tends to be split into effort sections as follows:

30% of your time is planning before you even write a line of code.

10% of your time is actually involved in writing the code.

60% of your time will be spent debugging the program before it will run perfectly.

And even after the long sessions of debugging, other bugs might even turn up much, much later. Think about it like gardening. 30% spent planning the layout,

10% spent planting, and the rest of your life spent weeding, pruning, trimming and adding. However, in programming and gardening you also get the pleasure of a job well done!

Machine code:

We will not even begin to get into machine code here - it is a topic which needs more space devoted to it than we have available at the moment. Leave that to the people who either have a fixation for line after line of numbers, or those who have slogged away at programming for quite a while. Most, if not all, of the programs you will write in the early stages will not need machine code. But as a rough idea, machine code for the PCW is Z80 code. The Z80 in question refers to the Zilog80 chip which is the machine's central microprocessor. Using machine code means 'talking' directly to the chip in its own numeric language. A programming language such as the three we are looking at here allows you to talk to the chip in a language which more closely approaches English. Essentially, a language like C or Logo takes what you tell it to do and translates it into language which the Z80 can understand. But for now... forget it!

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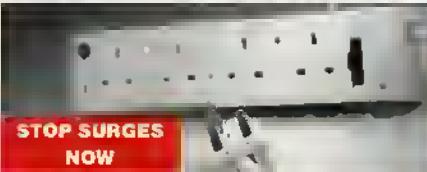
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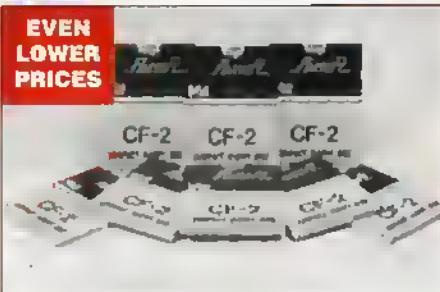


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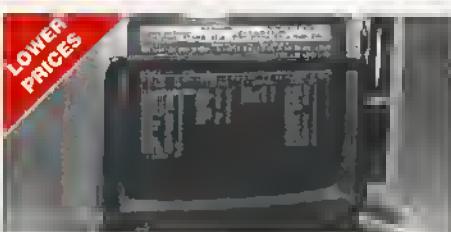
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Listings

Martin Le Poidevin introduces four more of your BASIC programs - an APR calculator, a CP/M clock setting program, a user-friendly version of PIP and a simple utility for setting out lists. So get out that BASIC disc, and start typing!

APR.BAS by Larry Simons

APR, or Annual Percentage Rate, is many peoples' nightmare. You are paying 12 monthly instalments of a particular hire purchase agreement or as repayment on a loan. You know how much you have to pay each month and, the world being what it is, the sum of those monthly payments exceeds the amount you owe. You are being charged interest on the loan.

But how much? Is it a realistic amount or are you being charged an unacceptably high rate? Many such agreements will quote an APR figure - but is it correct?

The calculation is a pretty complex one and could well occupy the backs of several envelopes before you reach anything like a satisfactory answer.

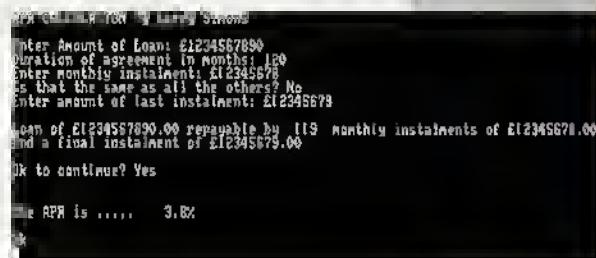
On the other hand you could just type in this listing from Larry Simons, and then put your figures through the computer. It will tell you almost

instantaneously the amount of interest per year that you will be paying.

The program is simple to operate. When you RUN it you will be asked a series of questions: what is the size of the loan (or the cost of the hire purchase item), how long will the agreement last, the amount of each monthly instalment, and whether each instalment is the same (the final payment often differs slightly from the others, in order to make a fine adjustment to the total).

The computer will then confirm this information. On hearing that you are happy, it will go ahead with the calculation and will present the final result in percentage terms, truncated - as is required by law - to one decimal place.

From our tests, it would appear that the program can handle very large loans (we're talking about the national debt of a small African nation here) to be repaid over the course of several years.



An indication of how powerful this program is: a £12 million loan, at 3.8% interest - all calculated within the space of a minute.

There is, however, one thing that the program cannot cope with - when the sum of the repayments comes to less than the total of the original loan.

However if you ever do get offered that sort of deal you won't want to be wasting time working things out on the computer - you'll be already writing the first cheque.

10 DEFDBL A-H,O-Z:DEFINT I-N	OD2B
20 DEF FNc\$(x)="£"+MID\$(STR\$(INT(x)),2)+". "+RIGHT\$(STR\$(100*(x-INT(x)+1)),2)	1D13
30 PRINT CHR\$(27);"E";CHR\$(27);"H";"APR CALCULATION by Larry Simons":PRINT	22F4
40 b\$=CHR\$(7):INPUT "Enter Amount of Loan: £",a	167B
50 IF a<=0 THEN PRINT b\$,:GOTO 40	0ED1
60 INPUT "Duration of agreement in months: ",n	18D8
70 IF n<=0 THEN PRINT b\$,:GOTO 60	0F2F
80 INPUT "Enter monthly instalment: £",r	17DC
90 IF r<=0 THEN PRINT b\$,:GOTO 80	0E55
100 PRINT "Is that the same as all the others? ",	17A4
110 k\$=UPPER\$(INPUT\$(1)):IF k\$="Y" THEN PRINT "Yes":f=r:GOTO	1501D5C
120 IF k\$<>"N" THEN PRINT b\$,:GOTO 110	105E
130 PRINT "No":INPUT "Enter amount of last instalment: £",f	208C
140 IF f<=0 THEN PRINT b\$,:GOTO 130	0F92

Information gathering is an important part of any program - this program also checks to make sure that the data you enter is valid

150 PRINT:PRINT "Loan of ";FNc\$(a);" repayable by ";	1879
160 IF f=r THEN PRINT n;" monthly instalments of ";FNc\$(r):GOTO 190	20E8
170 PRINT n-1;" monthly instalments of ";FNc\$(r)	1743
180 PRINT "and a final instalment of ";FNc\$(f)	15B4
190 IF (n-1)*r+f>a THEN GOTO 210	0C6A
200 PRINT "The total of the repayments must exceed the amount of the loan!":END	296F
210 PRINT:PRINT "Ok to continue? ",	1292
220 k\$=UPPER\$(INPUT\$(1)):IF k\$="Y" THEN PRINT "Yes":GOTO 240	1A56
230 IF k\$<>"N" THEN PRINT b\$,:GOTO 220	106A

It is important that the figures which are fed into the calculation section are realistic. This section checks that they are, and if not, tells you so

Listings

```

240 PRINT:PRINT:PRINT "The APR is ";
250 m=n-1:v=0.99:v0=1.7E+38 1358
260 WHILE ABS(v-v0)>5E-10 0AC8
270 v0=v:v1=v:FOR k=2 TO m:v1=v1*v:NEXT k:v2=v1*v:w=1-v 0B15
280 v=v-(r*(v-v2)/w+f*v2-a)/(r*(1-n*v1+m*v2)/(w*w)+n*f*v1) 1BA5
290 PRINT "."::WEND 185C
300 v=1/v:w=v:FOR k=2 TO 12:w=w*v:NEXT:w=100*(w-1) 07BB
310 PRINT DEC$(INT(10*w)/10,"#####.#")%"":PRINT:END 1771
310 PRINT DEC$(INT(10*w)/10,"#####.#")%"":PRINT:END 1163

```

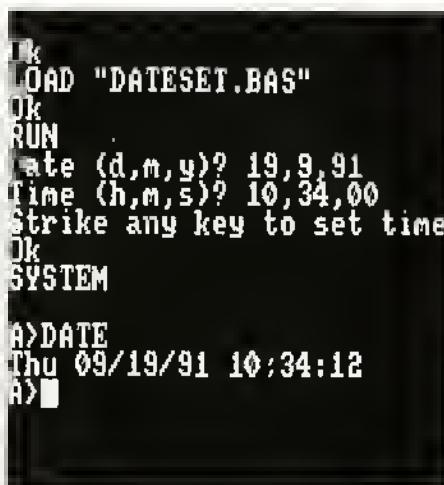
Calculating the APR is a fairly complex affair, which happens in lines 250 to 300. Line 310 prints the final result for you

DATESET.BAS by R T Wilson

Back in the August issue of the magazine we issued a challenge: to write a program that would set the date and time facilities from within BASIC.

Many thanks to all those who responded - there were some very good programs. The one that just squeezed into first place, though, was Mr Wilson's. It seemed to us that it combined all the elements of a good program - user-friendliness, solid construction and brevity.

When you RUN the program you will need to give just two lines of information - the date and the time. Each consists of three elements, separated by commas. You don't need to pad out the dates with 0s or the 19 at the start of the year (in other words 3,9,91 [RETURN] is a perfectly valid entry). The same goes for the minutes, although you should bear in mind that the computer thinks in the 24 hour clock



Using DATESET to set the time and date and then checking it by quitting to CP/M and typing DATE. Of course, we could have stayed in BASIC and used DATEPRIN.BAS.

- so 15,0,0 [RETURN] will set three o'clock in the afternoon (in fact 15, [RETURN] will leave you with exactly the same result).

Any errors in your entry will be picked up and you will be asked to retype the entry. Make sure that you set the time a few seconds ahead of the present because the program starts the clock running at the moment when you press a key.

DATESET.BAS can of course be used in conjunction with Dr Baker's DATEPRIN.BAS program which first prompted our challenge. But since it sets CP/M's internal clock it can be used for any other applications that you might be interested in both inside and outside BASIC. If you date stamp your files, you may well find that DATESET.BAS is a more friendly way of setting the clock than CP/M's DATE.COM.

```

10 REM DATESET.BAS - Sets internal date and time - by R T Wilson 1FC8
20 DATA 31,28,31,30,31,30,31,31,30,31,30,31 0C89
30 DIM mn(12) : FOR i=1 TO 12 : READ mn(i) : NEXT i 13CB
40 scbd1=645001 : scbd2=645011 : scbh=645021 : scbm=645031 : scbs=645041 196E

```

Not surprisingly, this program uses the same machine language information slots that the DATEPRIN.BAS program used

```

50 INPUT "Date (d,m,y)":d,m,y : IF y<100 THEN y=y+1900 1652
60 IF y MOD 4 =0 THEN mn(2)=29 0B35
70 IF y<1978 OR m<1 OR m>12 OR d<1 OR d>mn(m) THEN PRINT "Invalid":GOTO 50 21C5
80 days=0 : FOR i = 1 TO m-1 : days=days+mn(i) : NEXT i 189C
90 days=days+((y-1978)*365)+(y-1978+1)\4 + d 1113
100 d2=INT(days/256) : d1=days-d2*256 0FAE
110 INPUT "Time (h,m,s)":h,m,s 0E62
120 IF h<0 OR h>23 OR m<0 OR m>59 OR s<0 OR s>59 THEN PRINT
"Invalid":GOTO 110 223E

```

This section checks that you haven't tried to enter illegal dates or times - an hour with 82 minutes, for instance

```

130 i=h\10 : b=(16*i)+h-(i*10) 0A0C
140 i=m\10 : m=(16*i)+m-(i*10) 0A6E
150 i=s\10 : s=(16*i)+s-(i*10) 0AE3
160 PRINT "Strike any key to set time" 1399
170 WHILE INKEY$="" : WEND 0C47
180 POKE scbd1,d1 : POKE scbd2,d2 : POKE scbh,h : POKE scbm,m : POKE scbs,s 227E
190 END 0376

```

Finally line 180 POKEs the data, transformed to agree with CP/M's time-keeping conventions

COPY.BAS by Eric Shodder

There are several problems with PIP, CP/M's built in file transfer software. One is that it is not very user friendly. Another is that BASIC programmers cannot use it without leaving BASIC, which is annoying and time consuming. Equally annoying is the fact that BASIC has no command that is equivalent to it.

Well, BASIC programmers and timid CP/M users alike can take comfort in this new program from Mr Shodder. It does exactly the same job as PIP, allowing you to shift files from one disc to another or from one group to another on the same disc or even from one group to a different group on another disc. You can even rename a file by copying it to the same group on the same disc and then erasing the original.

Using the program is quite simple. Just run it. You will be asked the name of the file which is to be copied. Make sure you give the full name, with the file extension. Precede it with the user group, the disc drive and a colon, if they are not the ones you are currently logged on to. For instance, to copy DOGSBODY.COM from group 12 on drive M:, use the name 12M:DOGSBODY.COM.

The same rules apply to the destination of the file; give the group (if

it is not the current one), the drive and the name, unless you are copying to the same group of the same drive.

Give these names to the computer, and you will see a stream of dots appearing across the screen. This is proof that the copying is taking place. When it has finished, you will be informed. You must then reply to the next question by tapping the first letter of your required option: either A for Again, or F for Finish.

The same procedure is to be followed if any problems arise. Just select the capital letter of your required option. If a serious error is encountered, the computer will report back with an error number. If you want to know what any of these numbers mean, you will have to refer to the BASIC manual, where they are all listed.

There are a couple of points to be noted. Both the disc you are reading from and the one you are writing to must be in their appropriate drives all the time you are doing the copying. So to copy from A: to another A: drive disc you will have to go through drive M:. Real computer buffs should also note that con:, aux:, lpt: and the other logical devices will be called fpu. Hard disc partitions, though



COPY.BAS copying BASIC.COM between drives on an 8512 machine. So there are now two copies of the program, one on each disc

will be accepted as valid drives.

All in all a great program. We tested it on a 56k .COM file, which it transferred lock, stock and barrel. If it can cope with that we reckon it can cope with just about anything.

And if it should ring a bell with any long-standing readers, that should be no surprise. Mr Shodder has adapted it from a program by S Huggins that he found in an old copy of 8000 Plus. But it is so useful we thought it more than justified the repetition.

10 ON ERROR GOTO 100: INPUT "Name of file to be copied: ", oldname\$	206D
20 IF FIND\$(oldname\$) = "" THEN PRINT CHR\$(7); "File not found:	
Retry or Abort?": GOTO 130	28AD
30 INPUT "Enter new name for file: ", newname\$	1760
50 OPEN "R", #1, oldname\$, 128: OPEN "R", #2, newname\$, 128	15C0
60 FIELD 1, 128 AS oldtext\$: FIELD 2, 128 AS newtext\$: count=1	1C49
70 WHILE NOT EOF(1) OR count <= LOF(1): GET 1: LSET newtext\$=oldtext\$	238D
80 PUT 2: PRINT ".": count=count+1: WEND: CLOSE	1953

The program works by creating a new file, using the name entered in 'newname\$', and reading the old file's text into it, using the normal file handling functions

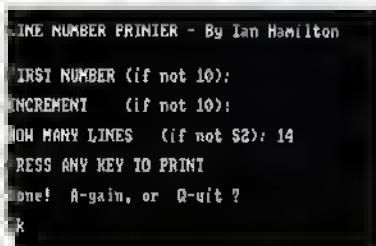
90 PRINT: PRINT "Copy finished... Again or Finish?": GOTO 140	1F9C
100 PRINT: PRINT "Error "; ERR; "found... Retry or Abort?": GOTO 150	21FE
110 CLOSE: RESUME 10	0970
120 CLOSE: END	06B5
130 a\$=UPPER\$(INKEY\$): IF a\$="R" THEN 10 ELSE IF a\$="A" THEN END ELSE 130	1B79
140 a\$=UPPER\$(INKEY\$): IF a\$="A" THEN 10 ELSE IF a\$="F" THEN END ELSE 140	1B89
150 a\$=UPPER\$(INKEY\$): IF a\$="R" THEN 110 ELSE IF a\$="A" THEN 120 ELSE 150	19FD

Line 10 tells the computer what to do if it finds an error: go to line 100. On getting there, it will report the error, and if you wish it to, it will RESUME in line 110

LINENUMB.BAS by Ian Hammond

Our Starters' Orders challenge has produced some simple but very useful little programs. The secret is not so much in the programming - which, of course, still has to be accurate - but in identifying a need.

In Ian Hammond's case, the need was nothing more complicated than producing a list of numbers down a piece of paper - to make notes, on a piece of paper, about individual lines as he was writing a program.



Setting up the program to print 14 numbers, increment 10 (the default), starting at line 10...

But he then realised that the program could have many more applications. Lists, chronological tables, graphs - all are made much easier to compile if you can simply jot down the information alongside pre-printed numbers at the planning stages of the project.

The program is flexible. It is set up for an A4 page, and by default - if you refuse to give answers to any of the computer's questions - it will print 52 line numbers, starting at 10, and with an

Listings

increment of 10. The program's roots, remember, are in BASIC programming.

However, you are not restricted to those settings. You can detail where you wish your list to start, how wide the gaps between the numbers are to be, and how many numbers there are going to be. For instance, if you are writing a chronology of Medieval History, you may wish to start at 1200, with an increment of 10 years, and end up in 1600 - which will require 41 lines.

If your list goes further than 61 lines, the computer will stop to allow you to change paper. Pressing [EXIT] to quit from the printer control state will give you the rest of your list.

If you have trouble with these page breaks the answer is to take manual control of the operation. For the first page, tell the computer to print lines 1 to 61, on the second, lines 62 to 123, on the third, lines 124 to 185, and so on.

Another beauty of the program is that it is so easy to refine. At the moment

```

10 clear the screen
20 credits
30 get first number(x)...
40 ... or set to 10
50 get increment (y)...
60 ... or set to 10
70 get no. of lines (z)...
80 ... or set to 52
90 wait for key before printing
100 PRINT !! 2 lines
110 menu: Again or Quit
120 get inkey
130 if A goto 30
140 if Q END - or goto 120 if
      wrong key pressed

```

Produce templates to analyse your BASIC programs. A marvellous idea if you are one of those programmers who can't remember where all your GOSUBs are.

It prints on every line. However, if you were to add an extra :LPRINT before the ':NEXT' in line 100, you will find that the program now prints on every other line, giving you more space for your comments. You will also find, of course, that you can only fit half the number of lines on to the page.

Other changes would require a little more ingenuity, but would still be perfectly possible. You could, for instance, convert the program to print times - say at five minute intervals, or at half hourly intervals.

This would require you to write a slightly more complicated adding routine, that added one to the hour every time that the number of minutes reached 60, and which reverted the hour to 1 (if you are using the traditional am/pm system) after 12 o'clock.

You could even put in a 'flag' indicating whether the time was morning or afternoon and then add the date and produce a whole diary.

```

10 e$=CHR$(27):c$=e$+"E"+e$+"H":PRINT c$
20 PRINT "LINE NUMBER PRINTER - By Ian Hamilton":PRINT:
30 PRINT: INPUT "FIRST NUMBER (if not 10): ",x%
40 IF x%=0 THEN x%=10
50 PRINT: INPUT "INCREMENT (if not 10): ",y%
60 IF y%=0 THEN y%=10

```

0D1C
1CEF
1667
08AD
149C
08BE

These lines simply ask for the information that the computer requires and, if you do not answer, they set the parameters automatically. Notice that if you decide to go round again, you will have to set these

```

70 PRINT: INPUT "HOW MANY LINES (if not 52): ",z%
80 IF z%=0 THEN z%=52
90 PRINT: PRINT "PRESS ANY KEY TO PRINT": WHILE INKEY$="" : WEND
100 FOR a=1 TO z%: LPRINT x%: x%=x%+y%: NEXT
110 PRINT: PRINT "done! A-gain, or Q-uit ?": PRINT
120 in$=INKEY$: IF in$="" THEN 120
130 IF UPPER$(in$)="A" THEN GOTO 30

```

177E
08E3
1FC6
1479
1896
0D68
0E05

The printing is done in just one line - line 100 - where a FOR...NEXT loop controls the number of lines printed

HOW TO TYPE IN A LISTING

The first thing to do is to boot up CP/M, by loading the disc into the machine at turn-on time; when it settles down type in the word BASIC and hit [RETURN]. You will be given a bit of information about Mallard BASIC, and the prompt "Ok". You can now begin to type in the program.

Each line begins with a number. This must be typed in, along with the text that follows it, but not the list of numbers on the right hand side (these are part of a checking procedure we publish from time to time). Make sure that what you type is exactly what is on the page, especially in terms of punctuation. One semi-colon instead of colon may not seem much to you, but it could spell disaster for the program. Be careful, as well, that you differentiate properly between "0" (the number zero) and "O" (the capital "O"), and between "1" (the number "1") and

the lower case "l". From such small errors, great crashes flow.

If you do spot an error in a line as you are typing it in, use the cursor keys to go back and amend it. Once you are sure that a line is typed in correctly, then hit the [RETURN] button and go on to the next one. If you subsequently notice a mistake, type "edit", followed by the line number and [RETURN], and you will be given the chance to make your correction. Once you have typed in the whole program, check that everything is there as it should be by typing "list" [RETURN]. The whole program will scroll past you. To stop it at any point press [F5], and to restart it press [F5] again.

If all is present and correct, save your program to disc by typing "save" followed by the program name, which must be in quotation marks.

Now comes the moment of truth. Type run [RETURN]. If all has gone well, it will work first time.

If not, you may be given an error message, often with a line number attached (which may or may not help - often that can be the line in which an earlier mis-type can become critical) so that you can rectify the fault.

If there is no fault there, or no line number, check the rest of the program with a fine toothcomb.

Don't forget to save the improved version of the program (use the same filename and the old, bugged version will be deleted).

When you want to use the program again you must first load BASIC as before, then type: "LOAD "filename" [RETURN]. It can then be used as before, by typing RUN [RETURN].

The definitive guide to desktop publishing with the PCW

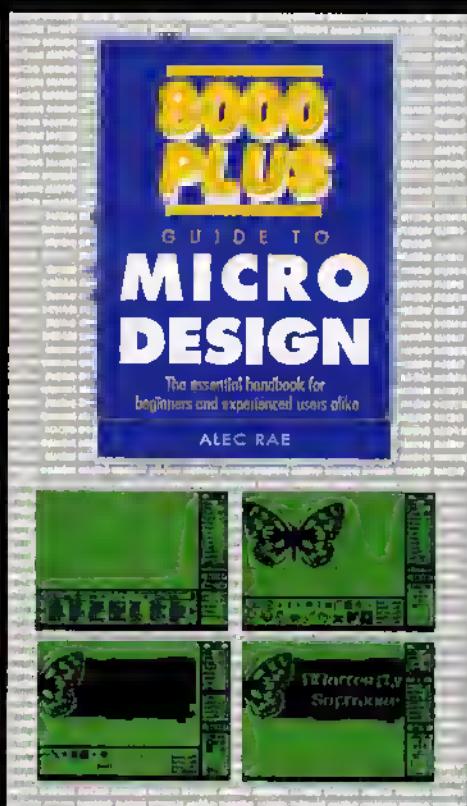
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Reference Point

Every time you read a reference book, you'll be amazed at the detail involved. So how could you possibly write one? Nick Vandome explains

Who's who?

Here are some publishers who specialise in reference works: Chambers, Northcote House, Thorsons, A. & C. Black, Longmans, Sphere Books, Collins, Macmillan, and Virago Press. The book covers shown across the middle of these pages are two examples from the range published by Northcote House Publishers. They produce a whole range of 'How to' reference books, on topics as diverse as *Surviving Divorce and Choosing a Private School!* Northcote House are on (0752) 705251.

Money, as they say, makes the world go round. This is in fact untrue; reference books make the world go round. Before you coil back in horror at the very idea of such a statement, remember this. We all use reference books, even people who claim that they never read any type of book: to manipulate the latest PCW program, to learn how to brew homemade beer, to discover how to make a million pounds in a week, or to learn who was the first murderer to be apprehended by the use of wireless. There is also the trivia addict of course, who will devour every available piece of information just for the sake of it.

There are two ways to go about writing a reference book: as an expert in a particular subject or as a writer who is willing to find out whatever information is needed for the book concerned. I have recently been commissioned to write both types of book and they each present their own particular challenge.

Right place, write time

The first book I was asked to write was a general reference book on crime and criminals for Chambers. How I obtained the commission may not be typical but it goes to show that there is no definitive method for writing this type of material. As with a lot of writing projects I first heard about the book entirely by chance. I was speaking to a friend I had not seen

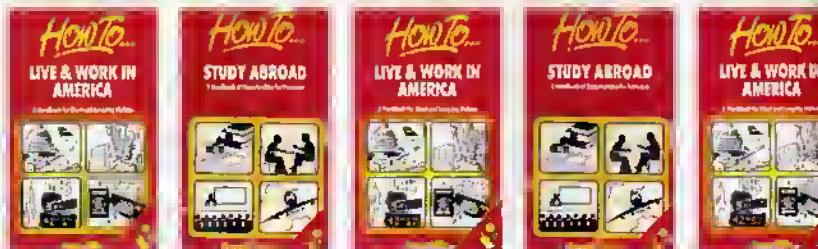
for several months and she mentioned she was doing some translation work for Chambers and that they were thinking of commissioning some books in a general reference series that they are putting together. On the off-chance I wrote to the reference publishing manager, graciously offering my literary services. To my surprise she invited me to come and see her and after a few conversations she offered me the commission.

This experience proves a number of points. Firstly, that being in the right place at the right time has as much to do with success in the writing business as any outstanding talent. Secondly, some proof of writing credits is helpful, if not

you have to convince the publisher that you are the right person for the job.

Plan ahead

Despite the element of luck there is a certain amount of planning to do when writing a reference book. Initially you should decide what type of book you want to write, be it a guide to tropical fish or a 'How To' book on writing your own computer programs. Once you have done this then find out what publisher produces this type of work. This can be done using the standard writing reference books (*The Writer's Handbook* or *The Writer's and Artist's Yearbook*) but the best way is probably to scour

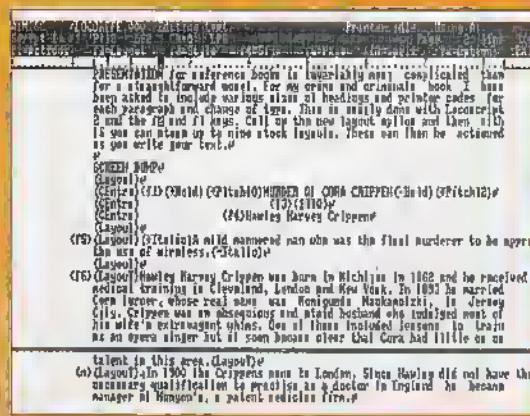


your local bookshops and see who is selling what.

After you have your subject and prospective publisher then you can begin marketing your idea: never write a reference book first and then try and sell it. Publishers of this type of work have very precise demands and it is unlikely they will accept a completed book on

USING LOCOFILE TO ORGANISE YOUR WORK

Thanks to Locomotive people it is possible to do all the work for a reference book using Loco products. Naturally, you will probably be writing the book with a version of LocoScript but while this is not absolutely vital it is important to have a program that contains a word count. Reference books have to have a precise number of words per pages (between 520-540 in the case of my crime and criminals book) and if you do not have a word count then you will go out of your mind and probably upset your publisher into the bargain. A spell checker is also useful but not vital. Even if you do use one then make sure that you also check your work in the old fashioned way. Once you have mastered the intricacies of LocoFile it is invaluable for storing information about different aspects of your work. Its uses are better explained by other 8000 Plus writers in these pages but if you try to keep your filing system in



Layout will be different for each type of book but you will save yourself a lot of time and effort if you standardise all your templates and layouts before you begin. Of course, it is important to talk to your publisher first about their specific requirements for a given piece of work.

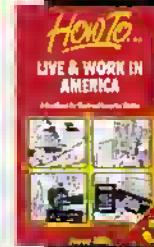
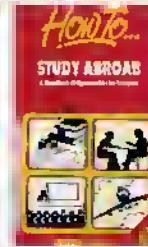
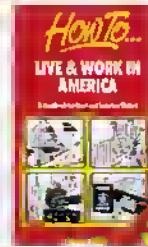
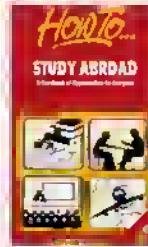
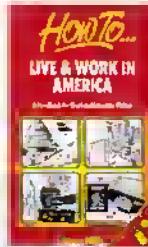
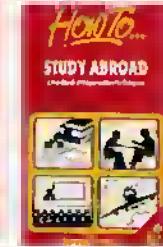
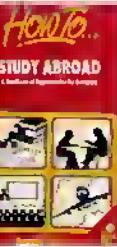
your head then things will go horribly astray. One use I have found for LocoFile is for listing which research sources relate to which subject in the book. This is not only useful for revising but it can also be used in a bibliography. LocoMail comes into its own when you are trying to find out similar information from several sources. If you think it is easy enough to change the addresses on a few standard letters then use LocoMail and you will be converted. Presentation for reference books is invariably more complicated than for a straightforward novel. For my crime and criminals book I have been asked to include various sizes of headings and printer codes {f1> etc} for each paragraph and change of type. This is easily done with LocoScript 2 and the [f2] and [f5] keys. Call up the new layout option and then with [f5] you can store up to nine stock layouts. These can then be actioned as you write your text.

spec. A better idea is to send a detailed synopsis of your book, and a covering letter stating how long you expect the book to be, a completion date, any other books of that type on the market, and the intended readership. Also include any of your own writing credits.

Headword list

If a publisher is interested in your idea this is only half the battle to getting your name on that all important contract. In my case I was asked to compile a headword list on crime and criminals and also write a couple of sample entries. The headword list is the bible you will keep with as you work your way through the book. In essence it is a list of all the entries in the book, the relevant dates and the proposed number of pages each entry will occupy (reference books need to be written to extremely clearly-defined parameters).

In my case this consisted of 180 entries that would fill 240 printed pages. This list not only lets the publisher see the shape of the book but it gives you something to follow as you write your book. In some of the darker moments that you will experience it can act as an effective security blanket.



The other useful purpose that a headword list serves is as an instigator of your research. If you are writing a reference book as a writer rather than an expert then you may be writing about something that you do not necessarily know a lot about (as was my case when I originally began writing about crime and criminals). This means that you will have to spend a lot of time finding out the necessary information. Some of this will be done while you are compiling the headword list but more importantly you will find out the location of much of the research you will need while you are actually writing the book. For this purpose it is also a good idea to sweet-talk your local librarian so that they know what you are looking for and are able to satisfy what may be a ravenous appetite for research material.

Once the contract has been signed and the initial elation has worn off you will have to get down to the nose-to-the-grindstone business of writing your book. Unfortunately there is no easy way to do this except to strap yourself to your PCW for as long as it takes. To make things easier set yourself realistic targets on a daily, weekly and monthly basis and reward yourself if you meet them. One important thing to remember is that even though you are compiling a book from existing information you need to put it into your own words. Find the

BASIC RULES AND REGULATIONS

The nuts and bolts of writing a reference book will vary from publisher to publisher but here are the main variations that you will come across:

Contracts: Most publishers have standardised contracts for this type of work which will contain the title of the work, the completion date and the length. Check all the clauses carefully and if you are unsure about anything then ask the publishers.

One considerable variation with contracts is the method of payment. In some cases you will be offered a percentage of the royalties (this is a negotiable figure, but for first books you will probably have to take what is offered), or alternatively you may be given a flat fee. Both have their advantages and disadvantages. If you receive a flat fee then you will give up your copyright, but you will get all your money by the time the book is published. With royalties you may have to wait up to a year after publication before you receive your first cheque, but you stand to make more money if the book is a runaway success. Don't be afraid to haggle over a contract but try not to push your luck too far.

Advance: You should be offered one of these, either on signature of contract or else when the manuscript is finished. If an advance is not forthcoming then enquire about it – it is a sign of good faith from the publisher. However, remember that it is an advance against future sales and not a gift.

Photographs: A large number of reference books have photographs and you may be asked to locate the sources where these can be obtained. This can be done by consulting the photograph libraries listed in *The Writer's Handbook*. Once you have found the sources the publisher will deal with the purchase of the illustrations.

Presentation: In this day and age it is common for publishers to request manuscripts on disc as well as a hard copy. Others still prefer a printed typescript. If you do need to present your work on disc then make sure that the publisher can work from a PCW disc.

information, read it, then set it aside while you are writing. If you do copy material verbatim it will be spotted by a hawk-eyed reader somewhere.

Getting the facts right

Aside from delivering your manuscript on time the most important aspect of a reference book is accuracy. People will be expecting all the information to be correct and even if it is just for solving a dispute during Trivial Pursuit you owe it to your readers to be as accurate as possible. If you are uncertain about a fact then leave it out. Having said this, dozens of the books I have consulted have contained a variety of errors but your aim should be to be 100% accurate. I try and consult at least three separate sources for each entry.

Another type of reference book is that written by an 'expert'. This does not have to be a Nobel Prize winner or a member of Mensa – an expert is just someone who knows more about a certain subject than the majority of the population. In reality this means that everyone is an expert at something. In my case several years working and travelling abroad have apparently made me an expert in taking a year out and I have recently been commissioned by Northcote House Publishers to write a book on *How To Spend a Year Abroad*. This came about after I wrote to them

explaining my travelling and writing credentials and including an outline of the intended books. After several months of negotiations we eventually decided on the type of book that could be written – the title proved to be one of the biggest stumbling blocks – and another contract appeared through the door.

Expert information

The main difference between a reference book written on one of your specialist subjects is that you will know a certain amount of the information already. However, this does not mean that you can just write the entire book off the top of your head. Even if you are sure of facts and figures check them anyway, it is worrying how inaccurate the memory can be. You will probably also need to supplement the information that you already know. In my own case this means finding out about all the possibilities for travelling and employment abroad that I did not do myself. This not only involves obtaining information from the relevant organisations but also interviewing people who have undertaken the necessary projects – if you do not know about something then talk to someone who does. This not only adds to the factual information in the book but it also gives a human element to the facts and figures.

Pay it back

Some publishers will reimburse writers for books that have to be bought during the course of research. This varies but is usually in the range of £50. Other publishers will not do this. It's as simple as that.

Take care

When writing a reference book as an expert you should approach a publisher in the same way as any other reference book and if you do obtain a commission then do not get carried away with the wealth of knowledge at your disposal. Your aim is to convey information as precisely and concisely as possible and you may have to undergo some strict self-editing to avoid over-writing.

The Good Software Guide

These pages provide a comprehensive guide to the Amstrad PCW software. Published in three monthly parts, this time it's the turn of **Databases, Educational Software, Communications and Programming Languages**. We've set out to cover every important piece of software we could lay our hands on, and to give you enough information to decide whether they are suitable for you. All software will run on both the 9512 and the 8000 series machines, though the former's daisywheel printer cannot print graphical output. The selection isn't exhaustive, but the software here represents what we think is the best of that currently available.

Spreadsheets

If a database replaces an address book, then a spreadsheet replaces the back of an old envelope. It is really an electronic piece of paper which allows you to juggle numbers, juggle them around and analyse the cost benefits of a situation.

Whilst for business, spreadsheets can be useful to home users too; if you want a bank book you will find that showing your bank manager a spreadsheet printout of your living expenses answers a lot of questions.

A typical spreadsheet has a grid of rows and columns. This grid holds a screenful of cells identified by their column and row numbers, e.g. A3, K36 etc. Each cell can contain a simple number, some text or make the page easier to read, in a formula telling the spreadsheet to work out a number using values from elsewhere. The power of spreadsheets is in this last category, formulas. You can make a cell's value depend on the value of cells above it, in to the left of it, and this value is then automatically updated if changes are made to the other cells.

So how do you choose between the various spreadsheets? One difference is their size, i.e. the number of cells you are allowed to work with. You'll need a few hundred for home use, and 10000 more for business use.

Another area is the range of functions that you can use – all spreadsheets allow simple column and row totalling, but with some you can get complex statistical analyses too. As with all software, think very carefully what you will need before choosing.

MINI OFFICE PROFESSIONAL

£49.95 • Database Software

0625 859333

Mini Office is a suite of five integrated programs – database, word processor, graphics module, maths package, and a very good spreadsheet. Broadly similar to SuperCalc 2, operation with most features of auto or manual recalculation, replicating of rows/columns, powerful range of arithmetic functions etc. Printout is a strong point – rows/columns can be put into italic/bold etc, and prints draft, NLQ or even sideways! Can't sort and can't just save data or structure of a spreadsheet, but maximum size of spreadsheet is claimed to be 320k. You can use the data from a spreadsheet in the graphics module directly. Similarly the maths package is part of the suite and vice versa. The manual is, however, pretty useless, but the programs are pretty self explanatory.

PLUSES • MINUSES

- ▲ Good, full-featured easy to use spreadsheet
- ▲ Prints in draft, NLQ or even sideways
- ▲ Maximum size of spreadsheet 320k
- ▲ Can transfer data directly to graphics module
- ▲ Can drive 24-pin printers
- ▼ 'Save' options not as versatile as SuperCalc

CRACKER TURBO

£49.00 • Paperback Software

0245 265017

A spreadsheet designed with advanced calculating power firmly in mind, including statistical functions. The screen layout is fully defined by the user, and cell value calculations can also be full programs, e.g. DO... WHILE. It might prove too complex if all you want is simple spreadsheet operation. The screen messages are very helpful though. Turbo is claimed to be faster than Cracker 2 though sometimes it's not noticeably so. One of the best spreadsheets for producing graphs.

PLUSES • MINUSES

- ▲ Can cope with very complex formulas
- ▲ Flexible screen layout defined by the user
- ▲ On-screen prompts are very clear
- ▲ Graphs/charts can be automatically produced
- ▼ Documentation is large, but useable and confusing
- ▼ You've got to do a lot of work just to get started
- ▼ Very complex for quick, simple applications
- ▼ Needs some programming skills to get the most out of it
- ▼ Free workspace is on the small side (17k) although memory is used efficiently

SUPERCALC 2

£69.95 • Amsoft/Sorcim 091 510 8787

The best selling spreadsheet, initially endorsed by Amstrad, SuperCalc 2 is basically similar to ScratchPad Plus, but it has a smaller workspace and is less flexible about the allowed spreadsheet dimensions. You can store sequences of commands for repetitive calculations. Price includes VAT and p&p.

PLUSES • MINUSES

- ▲ Excellent manual – sections for beginners and experts
- ▲ Stores commands to run from files
- ▲ "Data Interchanger" allows you to transfer spreadsheet data to other applications
- ▲ Comprehensive range of calculation functions available
- ▲ Screen can be split into 2 windows
- ▼ Spreadsheet is limited by memory size
- ▼ No graphical output facilities

FIRST CALC

£29.95 • Minerva Systems 392 437756

Touted as a quick and simple to use program for the beginner, this is nevertheless quite a powerful spreadsheet, with a large capacity, ability to replicate formulas, export etc and able to tackle most spreadsheet tasks. Really it is not vastly more user-friendly than the rest but a good value package all the same.

PLUSES • MINUSES

- ▲ A lot of program for the money
- ▲ Good interface with demo files
- ▲ Simple to use but reasonably sophisticated
- ▼ Not much easier to use than more powerful packages
- ▼ Program is limited by the memory capacity of the PCW (300-400 filled cells)

Graphics

GRAFLINK 2

£24.95 • Philosoft

0282 870197

Operate up MasterScan possibilities to all DTP and graphic programs. Can also be used independently to scan in large areas of graphics, up to A4 size. Rather complex, perhaps, for the beginner, but ideal for the more serious DTP pundit.

PLUSES • MINUSES

- ▲ Gives MasterScan a new lease of life
- ▲ Excellent flexibility between speed and quality of scan
- ▲ For the experienced user it is both fast and efficient to use
- ▼ Documentation and media system unhelpful
- ▼ Takes time and disc space

LIGHTNING BASIC ++

£29.95 • CP Software

0993 823463

A programming package, incorporating MasterScan (see below) and the old MasterPaint software. MasterPaint is a WIMP environment graphics package (Windows, Icons, Menus, and Pointer) which will run with Kempston, AMX or Electric Studio mice. Good facilities for drawing curved or straight lines, polygons, boxes, circles and ellipses, and a host of 'fill' patterns. 'Undo' function and eraser facility, plus the ability to zoom in on a part of the picture.

PLUSES • MINUSES

- ▲ WIMP environment makes it easy to use
- ▲ Zoom function lets you fine-tune your pictures
- ▲ Good range of effects
- ▲ Undo and erase facilities
- ▼ Text fonts are boring
- ▼ Can't move large blocks with the copy function

MASTERSCAN

£69.95 • Database Software

0625 859333

A device which clips on to your printer head and scans pictures, sending the digitised result to disc. You can then use the pictures in desktop publications or in other graphics packages, such as MasterPaint. Very useful for newsletter production but the claims for MasterScan as a low-cost fax machine are grandiose – the quality of scanned text is poor if the text is anything less than half-size and you would have to send the file through a modem.

PLUSES • MINUSES

- ▲ Simple method of getting good digitised graphics
- ▲ Suitable for all desktop publishing programs
- ▲ Contrast control useful
- ▼ Quality of scanned text is bad – not good for faxes
- ▼ Problems with illustrations containing lots of grey

SIGNWRITER

£29.95 • Wight Scientific

081 858 2699

Offers the widest range of features of any of the poster printing programs including printing sideways on continuous paper. Signwriter provides a range of 20 fonts, some of them very imaginative, ideal for posters.

PLUSES • MINUSES

- ▲ You can redesign fonts and design your own symbols
- ▲ A wide range of interesting fonts is available
- ▼ Not very user-friendly
- ▼ Font design is slow

STOP PRESS

£49.95 • AM5 • 0625 878888

Thought out as a DTP program, Stop Press is an excellent graphics package. The present data in the form of graphs, pie charts etc., and has the usual range of facilities to draw and fill triangles, boxes and so on plus a very good 'zoom' option which lets you examine the effect of changes in great detail. Has one of the best free-hand drawing capabilities and has a wide range of copying features to give interesting effects.

PLUSES • MINUSES

- ▲ Good graph drawing facilities
- ▲ Can design your own area fill patterns
- ▲ Good range of clip art, which you can modify if you wish
- ▲ Can superimpose one image on another
- ▲ Works with AMX and Kempston mice
- ▲ Is also a good DTP package
- ▼ Undulating wiggly printed text is difficult

AYE PLUS PLUS

£29.95 • CP Software • 0993 823463

The full title is 'All you ever wanted to know about graphics, the universe and everything in PCW 8256/8512 ... but were afraid to ask PLUS' Plus. A wide range of little programs to do graphic things on the PCW like smooth scaling, defining windows, moving sprites around. The programs are written in assembly, with the source code provided if you want to see how to program them for yourself and adapt the routines.

PLUSES • MINUSES

- ▲ Wide range of useful features
- ▲ Can be used from BASIC, machine code, in other language
- ▲ The assembler source code is supplied
- ▲ Inexpensive
- ▲ Good manual
- ▲ CP don't mind you using their routines in programs you sell
- ▼ A bit long-winded to use from BASIC
- ▼ No easy way of finding just the routines you want

PAGE MAGIC, DISC IMAGE KIT, DISC POSTER KIT

£12.50 each • HD Design • 04867 91394

Clip art collection with a difference. This suite of three ready-made design aids offers a wide range of additions to your text. Page Magic contains a series of sporting images and digitised male and female shirts, together with a handy selection of frames and borders. Image Kit has a range of images, from Spitfires to Buddha, whilst Poster Kit offers an excellent collection of poster styles, which reproduce with astounding clarity.

PLUSES • MINUSES

- ▲ Poster Kit contains ready-made words such as 'Fare' and 'Sale'
- ▲ Excellent visual clarity

SKETCHPAD II

£15.95 • Composit Software

0952 595436

A nice little package for those who only need a simple graphics capability. Line, circle and box facilities are all supported, but curved lines are tricky. Smaller shapes and icons can be produced using the shape designer, and the final product can be tidied up using the zoom facility. Will be of interest to musicians who use the Composer's Pen package - the two are easily compatible.

PLUSES • MINUSES

- ▲ Ideal for the novice
- ▲ Can be used with or without mouse
- ▲ Includes zoom facility
- ▲ Integrates with Composer's Pen to neaten up copy
- ▼ Limited range of paper sizes
- ▼ Execution of some functions can be very time consuming

PCWDRAW

£39.95 • NTB Computers Ltd

0794 56297

A good all round graphics package. All the usual facilities available, with the bonus that it now supports the Kempston mouse, turning a good package into a powerful one.

PLUSES • MINUSES

- ▲ Zoom functions for close work
- ▲ Detail editing included
- ▲ Large working screen means you see things in context
- ▼ Mouse could be more fully implemented
- ▼ Documentation rather scanty

VIDI PCW

£79.99 • Rombo Productions

0506 414631

A very similar package to the Electric Studio digitiser; not much to choose between the two. Rombo's works with the Fleet Street Edition, Electric Studio's with Newdesk International.

PLUSES • MINUSES

- ▲ Text can be inserted from within the program
- ▲ 16 levels of shading
- ▲ Can print images to screen in defined order and time apart
- ▼ Unhelpful manual

TWEAK

£24.50 • Creative Technology • 0889 567160

This is a neat little add-on to the MicroDesign 2 DTP package which allows you to play about with graphics files. Basically it allows you to distort the image in a number of highly original and interesting ways. Smart features take a lifetime to complete. Can be used with virtually every graphics package known to the PCW.

PLUSES • MINUSES

- ▲ Easy way to achieve some interesting graphic effects
- ▲ You can combine features
- ▲ Arts as a conversion program for many graphics packages
- ▼ Some features are very slow

PROSCAN

£24.50 • Creative Technology • 0889 567160

An handscanner, developed mainly for use with the MicroDesign 2 DTP package, allowing you to scan pictures and use them in virtually any graphics package. There are a wide variety of settings (light/dark and dithering - patterns of grey). Quick and effective. Works best with line drawings but you can get effective scans with grey scales. You can also modify or adapt the images after scanning in MD2 or another graphics package and print them out.

PLUSES • MINUSES

- ▲ Good quality scans
- ▲ Easy to use
- ▲ Range of options allows you to tackle most pictures
- ▼ It can take time to get the settings right
- ▼ You need to fine the scan head up carefully when you have straight lines in the picture

MD CLEARTEXT

£13.50 • Exemplar Design • n/a

Designed for use in conjunction with MicroDesign, MD ClearText allows you to create your own type styles to liven up your work. There is a range of non-English fonts on offer as well, including the accents in the French, German and Spanish languages. An excellent add-on to an excellent DTP program.

PLUSES • MINUSES

- ▲ Developed in conjunction with Creative Technology themselves, resulting in a comprehensive appreciation of MicroDesign's workings
- ▲ No jagged edges or loss of definition when large characters are printed out

Games

The choice of games for the PCW is far from extensive in comparison with what is on offer for other machines.

However, the range is widening, and there is an increase in graphics-based games, replacing the text-only adventures which currently dominate the market for the PCW. Text-based games rely heavily on the use of parsers, which aid adventure navigation by word analysis.

The ability of a parser is, not surprisingly, responsible for the success or failure of a game. What follows is a selection of some of the best games currently available for the PCW, together with a thumbs up or down evaluation.

Some pieces of software which have graced these pages for years are now discontinued - but a diligent search may find copies residing with software distributors and retailers.

AVON

£14.95 • Topologika • 0733 244682

All PCWs

Based on the world and work of Shakespeare, this text-only adventure poses many a puzzle to even the most well-versed student of the bard. A handy help mode will get you out of the tighter corners. Compulsive gameplay!

Graphics 5/5 Strength of play 3/5

Challenge 4/5 Value Verdict 4/5

BRIAN CLOUGH'S FORTUNES

£14.95 • CDS • 0302 321134

All PCWs

A cross between Monopoly and Football Manager, combining board and PCW. Go for league and cup success - but keep the bank manager happy too!

Graphics 2/5 Addictiveness 4/5

Lasting appeal 4/5 Value Verdict 3/5

BRIDGE PLAYER GALACTICA 2150

£29.95 • CP Software • 0993 823463

All PCWs

The upgraded Bridge Player 2000. Excellent 'from' mode with hands written by Nicholson Gardiner of the London Bridge School. Retains strong play.

Graphics 3/5 Strength of play 4/5

Lasting appeal 4/5 Value Verdict 3/5

CLASSIC GAMES 4

£19.95 • CP Software

0993 823463

All PCWs

A compilation of classic 'thinking' games on one disc: Clock Chess, Bridge Player, Backgammon and Draughts. Excellent value for money.

CLOCK CHESS 89

£19.95 • CP Software

0993 823463

All PCWs

One of the better PCW chess programs. You can alter the level of play by specifying a time limit. Capable of very strong play and the 3D graphics are excellent. And, if you are getting badly beaten you can reverse the position and take over the computer's game.

Graphics 4/5 Strength of play 5/5

Range of features 5/5 Value Verdict 5/5

COLOSSUS CHESS 4.0

£17.99 • CDS Software • 0302 321134

All PCWs

A very strong chess game which arranges its use time which you spend thinking to plan its strategy. Bags of features, including blindfold games.

Graphics 3/5 Strength of play 3/5

Lasting appeal 4/5 Value Verdict 3/5

CROSSGRID

£14.95 • David Greenough Computing • 0274 636475 • All PCWs

"Crossword puzzles without clues" is how the packaging describes the program. Instead of the clues, you get a grid of numbers, each standing for a different letter. Can you work out which stands for which?

Ease of use 5/5 Addictiveness 5/5

Documentation 4/5 Value Verdict 5/5

CYRUS II CHESS

£15.95 • Amsoft • 0279 454555 • All PCWs

Chess game with a stunningly detailed 3-D display. The play is quite strong, with several handy features like allowing you to take back a move.

Graphics 5/5 Strength of play 3/5

Lasting Appeal 4/5 Value Verdict 4/5

DOUBLE T PATIENCE

£14.95 • Thurston Techniques

0395 277496 All PCWs

Six well-known card games (from Poker to Patience to Pairs) to be played either alone or against the computer.

Graphics 2/5 Addictiveness 5/5

Lasting appeal 4/5 Value Verdict 3/5

FORESTLAND

£14.95 • Classic Quests/Audigenic

081 861 1166

You're in a forest and you're not sure how you got there, whether you are asleep or awake, or even how to get out. Keep your wits about you to puzzle your way out of the wicked wood.

Challenge 3/5 Addictiveness 4/5

Atmosphere 3/5 Value Verdict 3/5

GNOME RANGER

£14.95 • Level 9 • 0344 487597

All PCWs

You follow the adventures of Ingrid Bottomlow, the intrepid gnome, through a fairytale landscape full of compelling puzzles.

Atmosphere 3/5 Interaction 3/5

Challenge 3/5 Value Verdict 4/5

GOBLIN TOWERS

£14.95 • Classic Quests/Audigenic

081 861 1166

For adventuring beginners. You are a brave warrior, seeking to retrieve treasure from a goblin-ridden castle.

Atmosphere 3/5 Addictiveness 3/5

Challenge 3/5 Value Verdict 9/15

GRAND SLAM

£14.95 (plus £1.50 p&p) • Lg'stik

0223 423456 • All PCWs

A challenging and realistic version of lawn tennis, calling for good manual dexterity and tactics. Choice of five venues including

Wimbledrn. Only drawbacks are the poor market control and the irritating ball boys, who slow the game down.

Range of features 4/5 Challenge 5/5

Interactivity 3/5 Value verdict 4/5

HEAD COACH

£22.95 • DGA/Coda • 061 330 0184 • All PCWs

You coach an American football team, picking players and deciding tactics against real NFL teams and players. Incredibly detailed simulation – a must for NFL fans!

Atmosphere 4/5 Interaction 5/5

Challenge 4/5 Value verdict 4/5

HOME ENTERTAINMENT CENTRE

£19.99 • CDS • 0302 321134

All PCWs

Five-in-one games compilation, featuring darts, backgammon, dominoes, cards and a wordsearch game. Excellent graphics, original ideas and presentation – darts has never yet been available as a game for the PCW.

Ease of use 5/5 Addictiveness 4/5

Features 5/5 Value verdict 4/5

INGRID'S BACK

£19.95 • Level 9 • 0344 487597

All PCWs

Secret in Granite Bunker in which Ingrid returns to Little Mooring to find it under threat from Jasper Quickhurk who wants to replace it with a yuppie estate. Adventure in 3 parts.

Atmosphere 4/5 Interaction 4/5

Challenge 5/5 Value verdict 4/5

KNIGHTTORG

£19.95 • Level 9 • 0934 814450

All PCWs

You are an arm in this typical Level 9 adventure by the name of Gridlegrits. An addictive game with lots of action, plenty to explore and mind-bending puzzles.

Atmosphere 5/5 Interaction 5/5

Challenge 4/5 Value verdict 4/5

LANCELOT

£14.95 • Mandarin/Level 9 • 0625

859333 • All PCWs

A game in three parts which re-enacts the adventures of Lancelot. Manufacturers have vividly created an Arthurian world in which points are awarded for displays of chivalry, valor or benevolence. The game permits a full range of powerful commands.

Atmosphere 5/5 Interaction 5/5

Challenge 4/5 Value verdict 5/5

MYTH

£22 (membership) • Magnetic Scrolls

0279 726585 • All PCWs

Join Official Secrets and you can have access to this excellent adventure game, where you find yourself cast as Poseidon – minus his godly powers! Rescuse your hair from the top of the gods.

Addictiveness 4/5 Atmosphere 4/5

Challenge 4/5 Value verdict 5/5

PATTERN PUZZLES

£11.50 • HTB Computers Ltd • 0506

414631 • All PCWs

A collection of intriguing puzzles requiring you to return order to a grid of patterned squares.

Similar to the tile games found in Christmas crackers, except that here there is no blank space to help you slither things around – instead the tiles and columns wrap round in various different ways. Mind-bending!

Ease of use 3/5 Dexterity 2/5

Range of features 4/5 Value verdict 3/5

RETURN TO OOM

£14.95 • Topologika • 0733 244682

All PCWs

Set in Countdown to Doom, you're back on the planet Doinnwaingera again to track down the Ambassador Regina who has been kidnapped by some very unpleasant robots. Another text-only adventure game.

Atmosphere 3/5 Interaction 2/5

Challenge 4/5 Value verdict 4/5

SCAPEGHOST

£19.95 • Level 9 • 0934 814450

All PCWs

You're a ghost with a mission – to catch the crooks who framed you on earth. You tramp your way through spooky crypts – solve the puzzles and brave the vivid graphics, and justice will be done.

Atmosphere 4/5 Challenge 4/5

Graphics 5/5 Value verdict 4/5

SIR PERCEVAL

£14.95 • Logistick • 0223 423456

8000s only

An action game from the court of King Arthur. Fight the nobles in the castle, pick up the treasure, and make your way to the next level. Good medieval fun with pretty good graphics in boot.

Ease of use 4/5 Range of features 4/5

Challenge 3/5 Value verdict 4/5

SPORTING TRIANGLES

£19.99 • CDS • 0302 321134

All PCWs

A rather poor implementation of the TV quiz show. Includes general, Hit for Six and Buzzword, and choice of specialist areas. Amusing graphics, but some of the questions are quite difficult for the average sports fan, to say the least. Up to three players.

Ease of use 4/5 Challenge 4/5

Presentation 3/5 Value verdict 3/5

STEVE DAVIS SNOOKER

£17.99 • CDS • 0302 321134

All PCWs

Surprisingly realistic simulation of both pool and snooker games – not as easy as it looks either! Pool shots, breaks and all sorts of spin, side, strength of shot. Good value, despite all the balls being green!

Graphics 2/5 Addictiveness 3/5

Lasting appeal 3/5 Value verdict 3/5

TANK ATTACK

£19.99 • CDS • 0302 321134

All PCWs

A strategy game for the PCW. A combination of imaginative computer graphics and old-style board game, complete with plastic tanks. Even tank heads on screen move beautifully! For up to four players.

Ease of use 4/5 Features 5/5

Challenge 4/5 Value verdict 4/5

PATTERN PUZZLES

£11.50 • HTB Computers Ltd • 0506

414631 • All PCWs

A collection of intriguing puzzles requiring you to return order to a grid of patterned squares.

TERRACOM

£14.95 • Logistick UK • 0223 423456

All PCWs

An excellent intergalactic struggle between you and the evil emperor Kashodek. You have to destroy his sky fortress in what can best be described as a game of cosmic squash! Regular battles with Kashodek's space module leave you fighting for life!

Atmosphere 3/5 Addictiveness 4/5

Challenge 4/5 Value verdict 5/5

TIME AND MAGIK

£14.95 • Mandarin Software • 0625

859333

All PCWs

An excellent trilogy of time travel adventure which can be played in any order. Your task is to protect the history of the world from the destructive timelines – another very atmospheric game.

Atmosphere 5/5 Interaction 4/5

Challenge 5/5 Value verdict 5/5

TERRACOM

£14.95 • Logistick UK

0223 423456 • All PCWs

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Atmosphere 5/5 Addictiveness 4/5

Challenge 4/5 Value verdict 5/5

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£14.95 • Mandarin Software • 0625

859333 • All PCWs

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Atmosphere 5/5 Interaction 4/5

Challenge 5/5 Value verdict 5/5

TIMES CROSSWORDS • VOLUME 4

£19.95 • Akom Ltd • 081 852 4575

All PCWs

Yes, the Times crossword for the PCW. Not trouble about the basic material, of course – but there are a few eccentricities in the implementation. Most can be ignored, but the fact that you can only have one clue on display at a time can take some getting used to. The advantage is that it has all the right answers.

Challenge 4/5 Ease of use 4/5

Documentation 4/5 Value verdict 4/5

TOMAHAWK

£19.95 • Digital Int • 0276 684959

All PCWs

A sophisticated Apache helicopter flight simulator. Impressive cockpit view graphics as you engage in combat missions – can be used with a joystick too.

Graphics 4/5 Addictiveness 3/5

Lasting appeal 4/5 Value verdict 4/5

UK TRIVIA

TREASURE HUNT

£24.95 • IMC Software • 0604 54814 • All PCWs

Put your wits against the program in this

carefully planned game. The quest for success is tricky; correct answers take you to various locations nationwide.

Atmosphere 3/5 Graphics 3/5

Challenge 3/5 Interaction 2/5

ULTIMATE QUIZ

£14.95 • DGC Software • 0274 636475

• All PCWs

Three quizzes on topics as diverse as the Highway Code and the Italian language. Clean screens and easy to use program make Ultimate Quiz an excellent entertainment and good value for money too.

Graphics 5/5 Challenge 4/5

Lasting appeal 3/5 Value verdict 5/5

WITCH HUNT

£11.50 • Classic Guests/Audiogenic • 081 861 1166

In Witch Hunt, you have been changed from an evil scheming rotter into a positively charming person – and you are not at all happy about it. To be returned to your former state, you have to gather the ingredients to give to the warty witch who can transform you back.

Atmosphere 3/5 Addictiveness 3/5

Challenge 4/5 Value verdict 10/10

WORLD OF SOCCER

£22.95 • DGA/Coda • 061 330 0184 • All PCWs

A soccer management simulation game; you select squads of players for your international team and guide them through the European and World Cups. Gives a good insight into the kind of strategic thinking required.

Atmosphere 4/5 Interaction 3/5

Challenge 4/5 Value verdict 4/5

YES CHANCELLOR!

£19.95 • Topologika • 0733 244682 • All PCWs

Become Norman Lamont for a day with this intense game/charade written in BASIC. Whether it's his budget balance or inflation control at stake, the Unions and the miners still have to be kept happy. Based on the popular TV program of the year.

Atmosphere 3/5 Interaction 3/5

Challenge 4/5 Value verdict 4/5

NEXT MONTH

The guide continues with the categories of SPREADSHEETS, GRAPHICS and GAMES. The month after will cover WORD PROCESSORS, ACCOUNTS, UTILITIES and HTTP, and the month after that it's back to this month's topics. Our intention is to keep publishing the three parts of the guide in rotation, updating it each month to include all new products. If you would like to see other sections of the guide, back issues of 8000 Plus are available at £1.75 each. Meanwhile, if you are aware of any significant errors or omissions in the file as published, please let us know. We intend to maintain it as THE authoritative guide to PCW software.

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Every program written by a mathematician who has spent many years in the betting industry. Programs that utilise the tried and trusted methods of the professional, not pie in the sky theories that fail to pass the test of time.

FOOTBALL BOXFORM Written by a former pools expert for Littlewoods. The program has forecast over 50% more draws than would be expected by chance. Hemes, aways and draws shown in order of merit and true odds given for every match. Merit tables show at a glance the teams currently in form and those having a lean spell. Australian Peels program included in the price.

RACING BOXFORM by the same author. Full details given of OVER 400 ENTRIES covering up to 57 selections. Includes SINGLE AND MULTIPLE entries of 1 to 100, 1 to 200, 1 to 300, 1 to 400, 1 to 500, 1 to 600, 1 to 700, 1 to 800, 1 to 900, 1 to 1000, 1 to 1100, 1 to 1200, 1 to 1300, 1 to 1400, 1 to 1500, 1 to 1600, 1 to 1700, 1 to 1800, 1 to 1900, 1 to 2000, 1 to 2100, 1 to 2200, 1 to 2300, 1 to 2400, 1 to 2500, 1 to 2600, 1 to 2700, 1 to 2800, 1 to 2900, 1 to 3000, 1 to 3100, 1 to 3200, 1 to 3300, 1 to 3400, 1 to 3500, 1 to 3600, 1 to 3700, 1 to 3800, 1 to 3900, 1 to 4000, 1 to 4100, 1 to 4200, 1 to 4300, 1 to 4400, 1 to 4500, 1 to 4600, 1 to 4700, 1 to 4800, 1 to 4900, 1 to 5000, 1 to 5100, 1 to 5200, 1 to 5300, 1 to 5400, 1 to 5500, 1 to 5600, 1 to 5700, 1 to 5800, 1 to 5900, 1 to 6000, 1 to 6100, 1 to 6200, 1 to 6300, 1 to 6400, 1 to 6500, 1 to 6600, 1 to 6700, 1 to 6800, 1 to 6900, 1 to 7000, 1 to 7100, 1 to 7200, 1 to 7300, 1 to 7400, 1 to 7500, 1 to 7600, 1 to 7700, 1 to 7800, 1 to 7900, 1 to 8000, 1 to 8100, 1 to 8200, 1 to 8300, 1 to 8400, 1 to 8500, 1 to 8600, 1 to 8700, 1 to 8800, 1 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92000, 1 to 92100, 1 to 92200, 1 to 92300, 1 to 92400, 1 to 92500, 1 to 92600, 1 to 92700, 1 to 92800, 1 to 92900, 1 to 93000, 1 to 93100, 1 to 93200, 1 to 93300, 1 to 93400, 1 to 93500, 1 to 93600, 1 to 93700, 1 to 93800, 1 to 93900, 1 to 94000, 1 to 94100, 1 to 94200, 1 to 94300, 1 to 94400, 1 to 94500, 1 to 94600, 1 to 94700, 1 to 94800, 1 to 94900, 1 to 95000, 1 to 95100, 1 to 95200, 1 to 95300, 1 to 95400, 1 to 95500, 1 to 95600, 1 to 95700, 1 to 95800, 1 to 95900, 1 to 96000, 1 to 96100, 1 to 96200, 1 to 96300, 1 to 96400, 1 to 96500, 1 to 96600, 1 to 96700, 1 to 96800, 1 to 96900, 1 to 97000, 1 to 97100, 1 to 97200, 1 to 97300, 1 to 97400, 1 to 97500, 1 to 97600, 1 to 97700, 1 to 97800, 1 to 97900, 1 to 98000, 1 to 98100, 1 to 98200, 1 to 98300, 1 to 98400, 1 to 98500, 1 to 98600, 1 to 98700, 1 to 98800, 1 to 98900, 1 to 99000, 1 to 99100, 1 to 99200, 1 to 99300, 1 to 99400, 1 to 99500, 1 to 99600, 1 to 99700, 1 to 99800, 1 to 99900, 1 to 100000.

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Tipoffs

The pages with more power-packed tips than a snooker hall!

Seeing red in LocoScript? Feeling blue about BASIC? Still green about CP/M? Then cue Tipoffs, and give yourself a break using the tips on these pages. You'll find invaluable information on LocoScript, LocoFile, BASIC, Masterfile, MicroDesign - not to mention all your other favourite programs.

And if you have one or two shots in your locker yourself, tell us - you could pocket £30, like Eileen Egles of Bognor whose tip will give you a quick break in LocoScript. Write to Tipoffs, 30 Monmouth St, Bath BA1 2XF - it's Freepost.

Composed tips

Some tips for the excellent music manuscript package "The Composer's Pen".

1. Always work with every bar numbered: cursor movements over more than a bar or two using [FIND] are easier and you don't lose your place. FIND can also be used backwards, or when cutting, pasting or transposing. Move the cursor along a bar line stave - it's quicker than moving along a music stave.
2. When editing a multi-stave score, temporarily remove all staves not needed by marking them with an X in the instruments screen ([f2], layout). This saves redrawing time.
3. When printing, only use the best quality 'hi-res' if essential - it's a bit slow, and the draft quality is perfectly acceptable for most purposes.

A Marshall, Grimsby

Centre party

Users of Micro Design 2: to move the cursor to the centre of the screen press [DOC] - very useful for centring text. D Manning, Tonbridge, Kent

Strange characters

I can easily get a character for é (e-acute), say, on screen in BASIC by typing CHR\$(225). But how can I print out the characters 128-255 in BASIC? LPRINT CHR\$(225) doesn't give an e-acute, only an italic letter a. Similarly, LPRINT CHR\$(169) gives 1/2 on screen, but prints out as an italic bracket!

Kane Guy, Gillingham, Kent

8000 Plus: There's nothing you can do about this - characters from 128-255 are not defined for the printer, only for the screen.

This means you can't print out any fractions, for example, or any of those

graphics characters used to make boxes on screen.

However, the following characters are available by typing LPRINT CHR\$(27)+"11" (capital I, then a one) and then LPRINT CHR\$(number from list below), which gives you:

0 à
1 è
2 î
3 ò
4 ã
5 ã
6 £
16
17

19 œ
21 ø
23 Å
25 /
26 ä
28 ï
29 È
30 é
31

So, for example, LPRINT CHR\$(30) prints out é on the printer (so long as you've previously issued LPRINT CHR\$(27)+"11" at some time). Incidentally, if you add 128 to any of the above figures, you get the character in italic.

Flipping right

The manual for Flipper 3 says that Mini Office Professional can't be used with a PCW8512. In reality there seems to be a way round this. The trick is to use

separate self-start discs for both the MOP spreadsheet and database in isolation from the main package - in this way Flipper 3 works without any

difficulty if you allocate half the memory for LocoScript and the other half for MOP.

H Galloway, Shefford, Beds

Two's company

I understand it is possible to delete, print copy files and so on, even if you are in the middle of editing a LocoScript document, but cannot see how this is done.

M Singh, Bradford

8000 Plus: While editing your file, press the [f7] key (or in LocoScript 2, [f1]) and select the 'Disc management' menu option then [ENTER]. The editing screen will vanish and you will see the same file directory screen as when you aren't editing a file. Now you can print, move and delete other files in the normal way, though they have to be on the same disc - you can't change discs in the middle of editing a document like this. To get back to your edit from where you left off, just press [EXIT]. This is useful if you realise while

editing that your disc is nearly full and you want to make some space to save the document you are editing. Go to the disc manager and move enough files from the floppy disc to the M disc to make space. When you've saved the edit you can move these files onto M to a new discs; otherwise they'll be lost forever!

It is impossible to print out a file on disc X while you simultaneously edit a file on disc Y. If you want to do this, copy the file from disc X to the M drive using [f3] in the disc manager. Then insert disc Y pressing [f1] to notify LocoScript of the change ([f7] in Loco 2) and cursor over the file in the M drive to be printed and hit P for print. Now you can edit the file on disc Y while the printer churns out its stuff in the background.

Feeding the answer

I have difficulty changing the print wheel (and indeed the printer ribbon) on my 9512 because the sheet feeder I am using causes an awkward obstruction. The left hand edge of the bail bar always gets in the way of the left hand side of the ribbon cassette. What can I do?

T Ellman, Swindon

8000 Plus: To get the daisy wheel in this position from the disc manager, press [PTR] and increase the left offset to an appropriate figure - say 30 - by pressing [f6] and entering that figure. Press [ENTER] and the daisy wheel moves to the middle of the platen freeing it from the edge of the bail bar. You can now lift the cover and change the wheel or ribbon. [EXIT] leaves direct printing.

Which printer

I would like to buy a printer for my PCW 9512 to replace the Gatling gun daisywheel. The new printer should do the following:

1. Print italics, bold etc.
2. Print graphics to high quality.
3. Be reasonably quiet.
4. Have a good manual.
5. Be under £300.
6. Be easily usable with my 9512.

Nicholas Cain, Letchworth, Herts
8000 Plus: Try the Star LC24-10 (at £240 or so from mail order advertisers in 8000 Plus) which satisfies all those points.

Lookup - old friend

LocoFile owners can make themselves an instant information lookup facility.

For example, you may want to decide on a 'house style' for your letters - how to arrange dates (9 Jan 1991? January 9th 1991? 9th January 91? etc.) how to treat company names (singular or plural?) and so on. Using LocoFile, you can create an instant lookup facility for anyone typing a letter so that they can consult the house style sheet when in doubt as to the format of a date, for example. The method described here can be used in all sorts of other situations.

Start up LocoScript as usual. In the disc manager, press [F1] and 'create LocoFile data'. Give the name for the

new file as STYLE.DAT on your start up disc. Next select [F5] and set the card size to width 60 and depth 50 (or more if your paper size allows it). Finish with [ENTER]. Next press [F3] and 'create new information'. Give the name as 'all', hide the name by deselecting that option with the [-] key and set the column and line to 1 each. Make the width 60 and depth 50. Finish with [EXIT].

Now type in the details of your house style, or whatever you wish to have on your instant lookup table. Finish with [EXIT].

Now, whenever you start up with this disc, the file STYLE.DAT is copied to the M drive.

So, if you are in the middle of writing a letter and wish to look up something from your table, press [F1] and 'run LocoFile'. When prompted select the file STYLE.DAT from the M drive and [ENTER]. Your table appears on screen; having consulted it press [EXIT] and you are returned immediately to your document, which you can continue editing as usual.

You can extend this method for a variety of other lookup tables: phone numbers, addresses, hints and tips, LocoScript keypress sequences, reminders... the list is endless.

K Carrington, London

8000 Plus: See also the tip 'File under quick' in these pages.

The flasher

SD users can change the ear-piercing beep in LocoScript 2.28 to a flash of the screen. At address 5C5F you see the sequence C9 3E 0B D3 F8 ED 4B 3C 1D 3E 02 D2 C9 3E DC D3. Change the first 0B to 08 and the 0C to 07.

E Duggan, Guildford

Discussion

1. Are B-drive discs called CF-2DD discs?
2. How can I use LocoScript in the B drive?
3. What are the advantages of the B drive over the A drive?
4. Can I get large letters in LocoScript?

R Caseley, Ipswich

8000 Plus: 1. Sort of. Discs sold as 'CF-2DD' are high quality for special use in the B drive of an 8512, but in practice you can take any disc, even a normal CF-2 one, format it and use it in the B drive: they are almost always

of sufficient high quality to work OK.
2. You can't.
3. Simply that you get about twice as much storage space, and don't have to turn the disc over. (A drive discs have 173K each side, a total of 346K, accessed one side at a time like an LP; B drive discs hold 706K, accessed one way only, like a CD).
4. On screen only, and only in the latest versions of LocoScript 2. If you buy certain printers (like the Star LC-10 or LC-24) you can print out large letters using LocoScript 2 too.

Shifty question

Why is it that when I press [SHIFT] and sd together that the find/exchange menu comes up with SD on it?

A Marshall, Grimsby

8000 Plus: It's a bug in the way the Amstrad keyboard is wired up. Similar 'clusters' of keypresses can give strange results: try typing the word 'list' quickly - it comes out as 'lilst' even though you don't press the w key. Similarly, 'PCW' comes out as 'PC?W'. Such effects are not present on the Teqniche replacement keyboard, advertised in 8000 Plus.

Double trouble

On my daisywheel printer at work, a Panasonic KX-P3131, I can get a smart 'double underline' feature. But I can't find a way to get this in LocoScript on my dot matrix printer. Is it possible?

G Vincent, Norwich

WHY YOU MUST READ THIS

New techniques revealed for emphasising headlines

A smart underline effect is possible in LocoScript!

It's sort of possible, by using lots of = signs. Here's how:

Before the headline put [+]/p8 [ENTER]. Type the headline and [RETURN]. Then type as many = signs as letters in the headline. End the line with [+]/ls0 [ENTER] [RETURN].

Make the next line start with [+]/p17 [ENTER], then a space, then [-]/p. Then type one fewer = signs than there were in the headline. Finish with [-]/ls [-]/p [RETURN] and carry on as normal.

LocoScript 2 owners can get a triple underline effect by using the triple-equals symbol instead of the equals sign.

File under quick

When working with LocoFile, text entry is very slow. If you want to type in a lot of text this is very frustrating.

The quick way is to create a LocoScript document of any name and type the text you want to put in LocoFile. Put the cursor at the beginning of the text and press [COPY]; move it at the end and press [CUT]; then press 0 (zero) to save it as a block.

Now run up LocoFile and go to the record you want to insert the text into. Just press [PASTE] 0 and the text is inserted.

Ian Chisnall, Bolton

8000 Plus: See also the tip 'Lookup - old friend' on these pages.

Student's question

I will soon begin a period of student research and wonder if my PCW is suitable for the task. Should I buy a PC?

Richard Bailey, Sheerness, Kent
Well, the PC has become a de facto standard for students, so there may well be some very specialist software for your particular subject, available for the PC but not PCW, that would make it worth your while changing formats - some programs specially designed to help petroleum geologists,

Japanese students, Latin scholars or whatever. Ask around the faculty; the presence of some specialist software really could make the difference.

However, you would do better to keep hold of your PCW if your graduate or postgraduate study involves the following:

1. Maths characters: the PCW's LocoScript 2 can't be beaten by any program except very expensive ones.
2. Ancient or modern Greek, Anglo Saxon, non-EC European languages,

Arabic, Urdu, Cyrillic, East European languages: for the same reason as 1. 3. Straightforward English or EC language text for a long dissertation or a thesis: buy Protext - it's quicker and more convenient for heavy-duty text.

There are a few specialist student programs for the PCW (bibliography programs for example) but none of them have knocked me off my feet. You can probably do your bibliography maintenance quicker in LocoScript or Protext.

Parascending

In many American magazines it has become very modish to use a strange form of paragraph indenting whereby the indent for each new paragraph is the same number of characters as the length of the preceding partial line - it's easier to see than to explain! (See illustration).

If you want to use this style, there is a very easy way of doing it in LocoScript 1 or 2.

First, go to a new line in a new document. 'Show spaces' by pressing [F8] (or [F1] in LocoScript 1), selecting 'spaces' with the [+] key and finishing with [ENTER].

Now keep typing a space then a hard space ([+] [SPACE]), a space then a hard space etc., until you almost go over the end of your current margin (if

This is a funny way of indenting paragraphs, but it is apparently very popular in the US!

The idea is not a new one, but design gurus assure me that it has only just become fashionable.

Fortunately for LocoScript users, there is an easy way of achieving the effect using hard and soft spaces.

A wonderful bonus is that subsequent editing does not destroy the spacing - it all reshapes automatically to accommodate.

The result is often said to be easier on the eye because of the extra space created.

New wave para indents: stylish for some

you do, delete spaces until the line of spaces is maximum length). Hard spaces show as square saucers, and normal spaces as small triangles.

Now put the cursor at the beginning, press [COPY], move the cursor to the end, and press [COPY] again, then a letter such as r (for 'return').

Now, instead of putting the usual [RETURN] (and [TAB]) at the end of each paragraph, press [PASTE] r. The spaces will force the next paragraph to begin in just the right place.

The beauty of this system of hard and soft spaces is that subsequent editing doesn't muck things up - all paragraphs obligingly reformat to the proper positions.

K Llewellyn, New York

Directory enquiry

In August's Tipoffs, Justin Lane wanted a short BASIC routine that will produce a sorted directory of files on the disc. This routine does it, though very slowly - about 20 seconds or so for a typical disc.

```
10 DIM file$(64)
20 IF FIND$("*.*")="" THEN END
30 f=1
40 IF FIND$("*.*",f)="" THEN f=f-1:
GOTO 110
50 file$(f)=FIND$("*.*",f)
60 a$=LEFT$(file$(f),1)
70 IF a$>"z" THEN a$=CHR$(ASC
```

```
(a$)-128)
80 MID$(file$(f),1,1)=a$
90 f=f+1
100 GOTO 40
110 FOR i=1 TO f
120 FOR j=1 TO f
130 IF file$(i)<file$(j) THEN SWAP
file$(i),file$(j)
140 NEXT :NEXT
150 FOR p=1 TO f
160 PRINT file$(p)
170 NEXT
180 END
```

David Preston, Godalming

DTP A to B

Here's a quick guide to transferring clip art between the major desktop publishing/graphics packages. Stop Press into the Desktop Publisher: Load up Stop Press, set the screen/canvas icon B1 and load in any .GRF graphic from the Desktop Publisher. Newsdesk International to Stop Press:

Load up Newsdesk International and put all the graphics you want to transfer on one screen. Save this as a screen file. Load up Stop Press, select the screen icon B1 and load in the .SCR screen file just saved. It appears reversed so change it back using K2. Stop Press to Newsdesk International: Put the required graphics all on one

Quick reference

If you are a LocoFile owner you have the ability to make LocoScript keep any documents you might want to refer to often - such as address lists, phone numbers, diary files and so on - constantly available in the memory, whatever disc is in the drive.

Just put it on one of your startup discs; then when LocoScript starts up, it copies all LocoFile .DAT files to the memory. This means that you can call these .DAT files up at any time for reference, whatever discs you have in the drive.

J Sturrock, Guildford, Surrey

Marginally faster

When setting margins for a new layout in LocoScript 2 which involve slight alteration of the existing margins, there are a couple of neat shortcuts.

Press [F2] while editing to change the layout or make a new one. Press [+] to move the left hand margin to the right, or [-] to the left. To jump to the right hand margin, press [SPACE]. Then press [+] or [-] to move it right or left. [EXIT] when the margins are correctly set.

The [+] and [-] are on either side of the space bar on a PCW8256 or 8512, and on the bottom left of the keyboard on a PCW9512.

Jeff Bird, New York, USA

Sign of the times

You know those 'active' electronic signboards you see in shops - the ones that display moving messages, adverts, notices or whatever? Your PCW can do the same with Protext. Type in the following document and call it SIGN:

```
[253]
HEADING 1
```

This is the first part of the display, which can be any length - a few lines or dozens of pages, it doesn't matter.

```
[6][6][6][6][6][6][6][6][6][6]
```

```
[254]clear
```

```
y
```

```
HEADING 2
```

This is the second part of the display...

```
[6][6][6][6][6][6][6][6][6][6]
```

```
[254]clear
y
[254]
x sign
```

Now, with the document saved, clear out any text on screen and in command mode type x sign [RETURN].

You will see the parts typed to screen at a readable speed, over and over again, until you press [STOP] a few times. Now you can edit SIGN, replacing the text with your own messages, and inserting extra parts if you wish. To make the delay between parts longer, increase the number of [6]s; or vice-versa.

S Nimes, Liverpool

Typecast

Justin Lane (Tipoffs, August) wondered how to turn his PCW into a typewriter in BASIC. This listing does the trick: every character typed on screen is typed on the printer too. Just

```
[STOP] to stop.
10 a$=INPUT$(1)
20 IF a$=CHR$(13) THEN
LPRINT:PRINT:GOTO 10
30 LPRINT a$: CHR$(8)"; : PRINT
a$ : GOTO 10
```

Geoffrey Childs, Winchcombe, Gloucestershire

8000 Plus: Incidentally, Geoffrey and the people at PCW World do an interactive BASIC manual/disk which includes a full dictionary of BASIC words. Phone 0384 66269.

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Loco to Protext

Last month you published a set of conversion charts from LocoScript 2 to Protext which was fine, except that you restricted yourself to the disc manager screen only. I am sure it would be very useful to have a similar chart for the commands encountered in edit mode, and so on.

Dr W Hill, Cardiff

8000 Plus:OK, here goes....

This is a list of all the commands in LocoScript 2, catalogued by menu, and the equivalent operation in Protext, which are all commands to be typed in at the a> unless stated otherwise. When Protext routines are given in brackets it means there is no direct equivalent command, but the effect can be had through other means, or a combination of commands, and is not necessary for the reasons stated.

LocoScript command Protext equivalent

EDITING TEXT SCREEN (Press [STOP] to return edit mode)

FROM F1=ACTIONS:

Document setup (Insert stored commands in document for headers/footers/ page lengths etc. such as >HE Chopter 5) non

Edit Identity Insert text merge or merge thru follow prompts (Press [STOP])

Disc manager Show phrases Show blocks non

F2=LAYOUT: New layout Change layouts Layout exchange non

Layout replacement Centre Right Align Set justification non

F3=STYLE			
<i>Underline</i>	[ALT]x thru u (turn on or off)		
<i>Word underline</i>	none	Alandon Edit	turn follow prompts (for high quality)
<i>Bold</i>	[ALT]x thru b (turn on or off)		[STOP] (thru r then y to confirm if document definitely is not to be saved)
<i>Double strike</i>	[ALT]x thru d (turn on or off)		
<i>Italic</i>	[ALT]x thru l (turn on or off)		
<i>Superscript</i>	[ALT]x thru s (turn on or off)		
<i>Subscript</i>	near	SET MENU (from [+ key])	
<i>Reverse</i>		Bold	[ALT]x thru b (to turn on or off)
F4=SIZE		CEnt	[ALT]x thru b (to turn on or off)
<i>Charattr pitch</i>	[ALT]x thru e for 12 pitch	CR extra	none
	[ALT]x thru p for 10 pitch	Double	[ALT]x thru l (to turn on or off)
	[ALT]x thru i to double current size (to turn on or off)	Italic	[ALT]x thru l (to turn on or off)
	[ALT]x thru e to redrsize current size (to turn on or off)	Justify	[ALT]x (to turn on or off)
	[ALT]x thru p for proportional stored command >LS followd by 0,5,1 and to on	Kern	none
<i>Line spacing</i>	nonr	LayoutT	(copy appropriate rulerline)
<i>Line pitch</i>	nonr	Line Pitch	none
F5=PAGE		Line Sparng	stored command >LS plus number
<i>Find page</i>	[ALT]x followd by p and page number	Last Linr	none
	Stored command >PA	Last Pgng Number	none
<i>End page here</i>	none	Mail	(either stored command, or & around variables, or ? around variables)
<i>Last line of page</i>	none	Patch	[ALT]x thru appropriate code (A % sign in a header or footer automatically inserts the page number in printlnt at that point)
<i>Krep current line with</i>	(Stored command >PA plus number, >PA 6, for example, won't force new page if it would leave a gap of the bottom of the page more than 6 lines)	Pgng Number	none
<i>?? lines above/below</i>		RvRvrs	(thru against right margin)
		Right Align	none
		SIC	
		SubScript	[ALT]x thru s
		Superscript	[ALT]x thru t
		UnderLInr	[ALT]x thru n (to turn on or off)
F7=SPELL		Word underlinr	none
<i>All of document</i>	Type spell or sm to use spell check options (Save from here to end as a block then type sm and give the name of the saved block or file to check)	UnitT	[ALT]f1 or [ALT]@ followed by number of 1/2 or @
	none	hard space	hard space
<i>Singl word</i>	none	hard hyphen	[ALT]n thru hyphen
<i>User dictionary upkeep</i>	(sm and access dictionary utilities with n)	CLEAR MENU (from [- key])	
		Bold	[ALT]x thru b (to turn on or off)
F8=OPTIONS		CR extra	none
<i>Show state of:</i>	Cards [ALT]x thru v (to hide or show)	Double	[ALT]x thru l (to turn on or off)
	Rulers [ALT]x thru r (to hide or show)	Justify	[ALT]x (to turn on or off)
	Blanks none	Kern	none
	Spaces [ALT]x thru s (to hide or show)	Line Pitch	none
	Symbols [ALT]x thru t (to hide or show)	Line Spacing	stored command >LS plus number
		Mail	(either stored command, or & around variables, or ? around variables)
		Pieh	[ALT]x thru appropriate code
EXIT	[STOP] thru sovr or s thru follow prompts	ReVerse	none
	[STOP] thru sav or s thru follow prompts and [STOP] to re-enter rdt mode	SubScript	[ALT]x thru s
	[STOP] thru sav or s thru follow prompts thro print or p (thru follow prompts (for draft quality) or print or pq	Superscript	[ALT]x thru t
		UnderLInr	[ALT]x thru n (to turn on or off)
		soft space	soft space
		soft hyphen	[ALT]f1 hyphen

Yes Master

Masterfile is one of the most powerful databases for the PCW. However, it can become tedious, repeatedly keying in certain sequences of keys - and a shame that certain keys like PAGE and FIND are not used. So here's a way to make Masterfile quicker to use.

Run up LocoScript and create a file in group 0 of your Masterfile startup disc consisting of these lines - be careful to type them in exactly as here:

01 S "155"

12 N "156"

E 129 "AMXXXE"

E 131 "AMXXXD"

E 133 "AMXXXLL????MD"

E 135 "AMXXXLC"

E 140 "MA7^M"

E 141 "AMXXXLS^MD"

E 142 "AMXXXSC"

E 155 "AMXXX"

E 156 "AMXXXFV"

E 130 "MIHM"

E 132 "MID"

E 134 "MIPM"

E 136 "MIBM"

E 143 "AMIVM"

E 144 "AMIAM"

10 A "E"

01 N "X"

That ^ is got by pressing [EXTRA]u. Save the file as TEMP. In the disc manager, press [f1] (or [f7] in LocoScript 1) and "Make ASCII file" by pressing [RETURN]. Give the name for the new file as KEYS.MF making sure it is in group 0 of your Masterfile startup disc and [ENTER] to make the file. Now you can erase TEMP.

Still in LocoScript, insert your CP/M master disc and press [f7] (or [f1] in LocoScript 1) to "change discs". Using [f3] copy the file SETKEYS.COM to group 0 of the M drive. Now insert the Masterfile disc, press [f1] or [f7] again, and use [f3] to copy SETKEYS.COM from group 0 of M onto group 0 of the Masterfile disc. Remove the discs, press [SHIFT] [EXTRA] [EXIT].

From now on, to run Masterfile, run up CP/M as usual and insert your

Masterfile disc. But before typing mf8000 [RETURN] to run Masterfile, type setkeys mf.key [RETURN].

When you are now in Masterfile the following applies:

CUT assigns any record to set 7 (or any other set by changing the number in the line above) - quick for mass deletion later

FIND finds a record or compares SHIFT-RELAY returns you to the beginning

PAGE alters the format; even-numbered function keys assist in setting up formats (f2, insert heading; f4, data; f6, panel; f8, box)

f1 selects all records; f3 enters display mode; f5 enters the file whose name is ??? (substitute an appropriate name for the question marks in the file above); f7 gives a directory

EOL inserts vertical lines

LINE inserts horizontal lines

ALT-CUT deletes current record

RELAY leaves current action

Fr Peter Weatherby, Oxford

Amaze your friends

In Protext's 'typewriter' mode, accessed by pressing tw [RETURN] in command mode, there is a feature I have never seen mentioned in any books or manuals.

Go into typewriter mode and type This is and press [COPY]; you see a blob appear. Then type text to be copied and press [COPY], keeping it pressed down. The letters from the blob are retyped on screen, so that as long as you press [COPY], you get the phrase 'text to be copied' typed repeatedly on the screen for you.

Does anyone know why the feature is here? M Jackman, Canterbury

OUT takes

I have heard that there are some interesting commands using OUT in BASIC which cause strange things to happen, such as blank screens and so on. Can you give me a definitive list of them?

W Peabody, Fareham, Hants
8000 Plus: Here's what we at 8000 Plus have come up with so far - further ideas welcome!

An unusual effect can be had in a BASIC listing by the command OUT 246, followed by a number between 0 and 255 - this changes the vertical origin of the screen. You can return to normal by the command OUT 246,255.

Another interesting effect comes from entering OUT 245, and a number between 0 and 255, and you can return

to normal by typing OUT 245,91 (don't worry if you can't see this last line as you type it - it's going in!).

You can use these to make a fake 'malfunction' in your listings to deter the curious from finding out what happens when they press this or that key.

If your BASIC listing involves building up complex screen layouts you can make things look much slicker by putting the command OUT 248,8 before the procedure and OUT 248,7 after it has finished. This blanks out the screen during the while the PRINT statements run and turns it back afterwards, presenting the completed picture in apparently instantly. What these commands do is effectively turn

the ink colour to black and then back to green again. The user has to look at a blank screen for a second or two, but the effect is quite neat and professional looking.

The command OUT 248,11 runs on the beeper until further notice and can be used as a 'burglar alarm' function. You need the command OUT 248,12 to turn it off again.

The command OUT 248,1 reboots the disc in the drive and can be used either to deter someone who's got a password wrong or in routines where a non-computer literate user is required to get another program running, eg. 1000 PRINT "Sorting finished. Now insert the LocoScript disc and press any key!"

Masterful!

I have a Masterfile working disc and know that I can adjust it so that merely by inserting it into the drive, it will run Masterfile without me having to type 'mf8000'. But I don't know how! **B Coope, Bristol**
8000 Plus: Start up your PCW by inserting a CP/M disc. When the A> appears type

m:=a;.ems [RETURN]
 followed by
 m:=a:subuit.com [RETURN]
 followed by
 m:profile.sub=con: [RETURN]
 followed by the sequence
 mf8000 [RETURN]
 then [ALT] z together.*

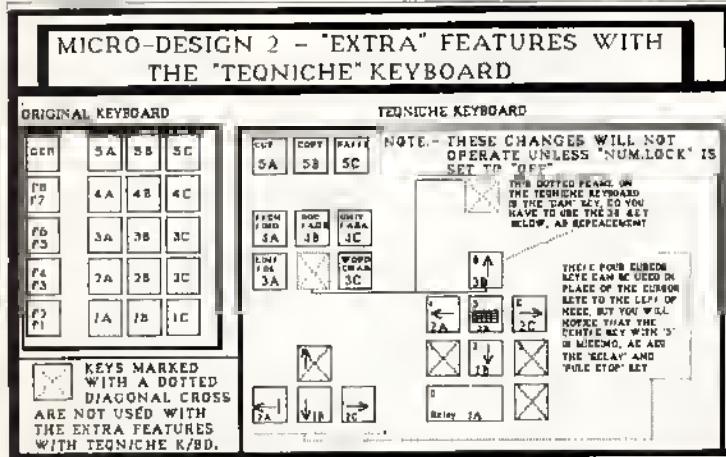
Now insert your Masterfile disc (i.e. the disc which you normally run Masterfile from by typing mf8000) into the drive in place of the CP/M disc and type *a:=m;*. [RETURN]*

When you insert this disc and press [SHIFT] [EXTRA] [EXIT], it should run up Masterfile automatically for you.

Owing MD

Owners of Micro Design 2 and the new Teqniche keyboard will find that the 'Extra' features may not work as

expected. This chart should explain what to do for those functions.
Frederick Wren, Eastbourne



Extra Extra! Vital Information for Micro Design 2 and the Teqniche keyboard

Continuous problem

I always use continuous paper, but LocoScript 2 insists on expecting everything to be printed out on A4 single sheet paper. So I have to change it to continuous paper before printing anything out. Can I get LocoScript to automatically print out on continuous paper?

J Wilby, Leeds
8000 Plus: First you have to make sure your document is set up for continuous paper. To do this, edit it, press [F1] and [ENTER] for 'Document setup', then

select [F5] 'Paper type'. Select 'I/continuous' with [+] and [ENTER]. [EXIT] [ENTER] [EXIT] [ENTER] takes you back to the main document.

If you set up your TEMPLATE.STD like this, then every document you create in that group will print on continuous paper.

Now you have to set up the printer to expect continuous paper as default. In the disc manager, with your startup disc in drive A, select [F6] and take

'Printer defaults'. From this select 'Default Paper Type'. Select 'I/continuous' with [+] and [ENTER], then [EXIT] [ENTER]. Now select 'Write SETTINGS.STD' and the new settings will be written to the disc in A. [EXIT] [ENTER] back to the disc manager.

From now on, when your PCW starts up it will print all those documents, automatically, in continuous mode... and without question.

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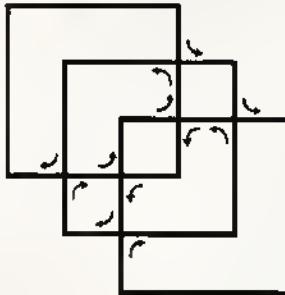
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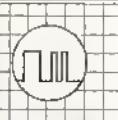
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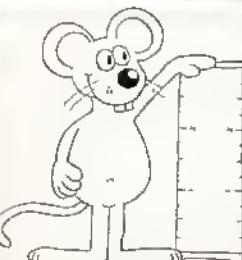
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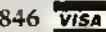
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Cautionary Tales

Even the best laid plans can develop a nasty habit of disintegrating – just when it is the least convenient. David Wilson reminisces

Suppose the movie makers' fantasy comes true for you one day. You're a passenger in a jumbo-jet, out in mid-Atlantic, when the stewardess comes rushing up to you, clutching her stomach.

"You're the only person on the plane who didn't have the Tandoori Rissoles!" she gasps, dribbling green froth on to your bag of duty-free. "You must take the controls or we'll all be..." With a gurgle, she collapses in the gangway. All around you are scenes which make Dante's *Inferno* seem like *The Country Diary of an Edwardian Lady*.

So, when you make your way to the cockpit, what's your first move? All right, your first move is to make sure that your flight insurance is in a safe place, but what next? Your guess is as good as mine, but I'm certain of one thing that you won't do: you won't push and pull every knob and lever you can lay your hands on. Even if your knowledge of aeronautics is as exiguous as mine, you'll have sense enough to know that such a course would be much more likely to make things worse rather than better.

I'm sure you can tell what I'm on about this month. The business programs I write are, of course, miracles of jewelled perfection, masterpieces of precision software engineering, but... just occasionally, something goes amiss. It's never my fault, needless to say! But that's what this universe of ours is like. Malevolent, Unfeeling, Always waiting for the chance to sneak up behind you with a sack full of wet sand and let you have it where it will do least good.

"Some day – and that day will never come" I say to my clients, "Some day something unexpected is going to happen. Instead of the friendly screen messages you're used to, you'll see something which will fill you with dread and nausea. If this happens, don't panic! Don't do anything rash and foolish! Just wait until the sun is over the yard arm, and ring me up. I'll tell you what to do."

Old hat?

My clients always nod vigorously at this point. A condescending smile always comes to their faces. Why am I insinuating their intelligence in this way, they are surely thinking. Why is this long-haired boulder talking to me as if I'm a complete charlie? Well I know why, and I bet you can guess why too. Before long, I'm going to get a phone call which will go something like this:



David Wilson: "Ninety-nine times out of a hundred I can raise the Titanic, but occasionally I've had to admit defeat"

"I was printing out a full list of customer accounts when the paper got screwed up in the printer, so I pressed [STOP] a few times, but nothing seemed to happen, so I unplugged the printer and kept hitting [EXIT] and then when I couldn't get back to the main menu I switched off, but then I'd forgotten to take the discs out, so when I started up again, it said..."

By this time, I've put the 'phone down, I'm looking for my car keys gathering together the six different disc editors I've accumulated over the years and I'm telling my Financial Manager that I don't even know what time I'll be home for dinner. I don't even bother to find out how recent the latest back-up is. My programs make backing up harder to avoid than to do, but I can probably guarantee that the last copies of the data discs are wrapped up in a newspaper whose headline is "Major to be New Chancellor".

The readership of 8000 Plus is expanding so fast (modesty forbids me to offer the only conceivable reason why) that there may be a few hundred thousand of you who haven't heard me say that the First, Second and Third Golden Rules of business computing are "Make back up copies of your data discs every day that comes!" Ninety-nine times out of a hundred I can raise the Titanic but occasionally I've had to admit defeat and tell him that he must re-enter thirty-four weeks' worth of data. At first, he will appear almost unmoved,

but my trained eye can see the poisoned dart working in his vitals. "I suppose you couldn't do something to help..." he begins, but I harden my already rock-like heart even further. "As ye sow, so shalt thou reap!", I thunder, and he falls, twitching and blubbering, at my feet. Pausing only to rifle the petty-cash box, I leave him in his misery, slime oozing from all his orifices.

Let his fate be a warning to you, dear reader! In the good old days when Mrs McKenzie used to keep your books for you, nothing short of the sun going supernova could have left you so utterly jiggered. She filed all the invoice copies in a scarred ring binder, interleaved with notes in an ant-like scrawl which none but she could decipher (or indeed were allowed to look at). Strangely, she would always answer any query, however involved, without even glancing at her cryptic records. In the dark of the night, you would sometimes ask yourself whether it was possible that she herself was unable to read her own writing...

Well, your computer has certain key advantages over Mrs McKenzie, estimable and worthy though she was. Your PCW may let you down some day, but it will never give you such a terrifying reminder of the frail foundations of human existence.

Forewarned is...

It's so easy to guard against the very worst that your PCW can ever do to you. Just spend a few minutes each evening making a clean copy of your data discs and then you can snap your fingers in the face of Fate. Your human employees and co-workers may give you a nasty viral infection, or snitch on you to Customs and Excise – nothing but clean living can protect you against that – but your computer has a pitifully small repertoire of frightfulness. It makes me laugh to see people as they leave their offices, wrapping their computers up snugly in dust covers, switching off at the mains and taking the plug out of the socket, setting the burglar alarm to protect a roomful of bits and pieces that wouldn't fetch £500 at an auction – and all the time the data that holds their entire peace of mind is hanging from a fraying cobweb – I really must stop this before I start to sob.

Have I touched your hearts, dear brother and sisters? Have I reminded you of those things you have not done? If so I've more than justified the cost of this copy of 8000 Plus – believe me.

"The business programs I write are, of course, miracles of jewelled perfection, masterpieces of precision software engineering, but... just occasionally, something goes amiss. It's never my fault, needless to say! But that's what this universe of ours is like. Malevolent. Unfeeling. Always waiting to sneak up behind you with a sack full of wet sand and let you have it where it will do you least good!"



GOOD REPAIRS GUIDE

Welcome to the Good Repairs Guide. In the event of your computer giving you trouble, you will know exactly where to turn to for help. We have tried to indicate the range of services offered by each company, together with a rough idea of how long they will take to carry out a repair; whether they will do on-site repairs (in which they send an engineer

to your computer) bench repairs (where you send the computer to them) or both; whether they will charge for carriage if appropriate; what sort of warranty, cover or other such policy they can provide; whether they are prepared to quote over the phone, and so on. Of course, many of the details given depend on circumstances. Repair times are very

much dependent on the availability of spares and your location, courier charges are naturally affected by where the computer is being carried from and to, and most were loath to give exact repair quotes over the 'phone. Where appropriate, however, most were prepared to discuss the possible price without making a commitment.

A1 Computer Services

9 Paddock Mount, Dawley,
Telford, Shropshire
TF4 3PR
0952 502737

- All PCWs, PCW printers
- Average time: 5 days
- No on-site repairs
- 3 month warranty on repairs
- Carriage charge repairs on distance

Dictaphone Co Ltd

Regent Square
The Parade
Leamington Spa
CV32 4NL
0926 429124

- All PCWs, PCW printers
- Average time: 2 days
- All repairs on-site – countrywide service but one control centre
- Contract maintenance: £39 to £54 for computers less than a year old, £53 to £73 for older computers (current prices) fixed, dependent on model but regardless of location.
- Prices and contracts discussed over the 'phone

GMC Computers

The Green, Cavendish,
Suffolk
CO10 8BB
0787 280526

- All PCWs, PCW printers
- Average time: 7 to 10 days
- On-site maintenance and service

contracts available; also warranty on repairs

- Carriage charged where applicable
- Estimates given over 'phone

Microtyne

No 1/3 Gallow Gate,
Newcastle Upon Tyne
NE1 4SG
091 261 4088

- All PCWs, PCW printers
- Average time: 3-4 days
- Carriage charged on long distances
- On-site service soon to be implemented
- 3 month warranty on repairs
- Quotes not usually given over the 'phone

PC Microcentre

9 Cherington Road
Hanwell
London
081 840 5343

- All PCWs, PCW printers
- Average time: 12 hours
- On-site service
- Warranty available
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- Fixed labour charge

Q6 Components

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Garsington
Preston
PR3 1HR
0995 606060

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- Time taken: from 24 hrs
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- 3 month warranty on repairs

Somerset Micro Repairs

Higher Pardlestone,
Kilve, Bridgwater
TA51 1SQ
0278 74528

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- No on-site repairs
- Carriage charge inclusive
- Will discuss cost over 'phone
- 3 month warranty on repairs

Suredata

Unit 6, Stanley House,
Stanley Ave., Wembley
Middlesex
HA0 4JB
081 902 5218

- All PCWs, PCW printers
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- Courier charge for longer distances
- 3 month warranty available
- Will offer rough quote over 'phone

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0934 820669

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- 2 days and over
- No on-site repairs
- Warranty repairs 3 to 6 months
- Maximum possible price given as quote

Software Plus

Unit 5, Green Park Station
Bath
0225 448855

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- 2-3 day turnaround
- No on-site repairs
- Courier charge
- quotes discussed over 'phone

Avcom Electronics

Kingsbridge
0548 856279

- All PCWs
- 7 day turnaround
- On-site within Kingsbridge area
- No carriage charge for local repairs

NKC Group (Repairs)

5 Rycaut Close
Parkwood Estate
Rainham
Kent
0634 387185

- All PCWs, PCW printers
- 4 day turnaround
- On-site repairs in locality
- Courier inclusive
- 3 month warranty
- Quotes over 'phone

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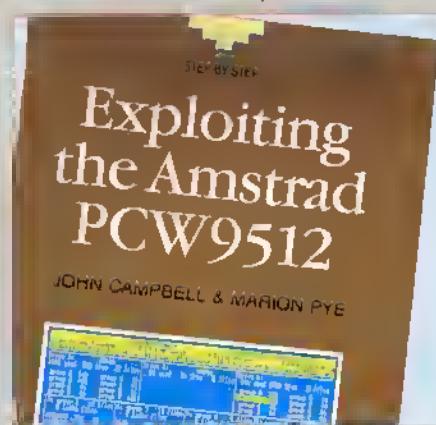
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Postscript

After the Birthday party - the hangover?

Well, not quite - but this month it seems your worst fears include the demise of the 3-inch disc; getting to grips with CP/M; getting hold of the Soft Options disc; and keeping your heads clean. Please write to Postscript, 8000 Plus, 30 Monmouth Street, Bath BA1 2BW. And sorry, but we are unable to reply to your letters personally

Goodbye PCW?

I came across an article in the August Edition of the New Scientist saying that the new PCWs will be "completely incompatible" with the old PCWs and that it will be very difficult to convert data from one disc to another. Can you confirm the scrapping of all the current PCWs as we now them? If this is true it does seem rather drastic.

I read your article on the new 3.5-inch drive from Silicon City and certainly considered buying it. I couldn't quite decide if it could be used in conjunction with LogoScript or only as a tie up to a PC. For instance, would I be able to use 3.5-inch discs (which, I understand, are cheaper than the 3-inch ones) as back-up discs for my PCW?

Obviously I would hate to see the 8000 series, as we know and love them, disappear, as this would mean the loss of many things we now take for granted - like 3-inch discs for instance.

Trixie Dines

Essex

8000 Plus: Your letter has seem to have been overruled by events - with the announcement of the new PCWs with the 3.5-inch disc drive. Most people involved with the PCW have been requesting this day to receive us three inch discs, and three inch disc drives, have become more and more difficult to get.

They obviously won't disappear over night but you may consider it worthwhile preparing for the day when it will be difficult to get a 3-inch disc.

However, there has been a bit of scare-mongering about the compatibility between the two sizes of disc, perhaps you know by people who want to sell a bit of new PCW.

If you were to fit a new 3.5-inch drive then you would be able to use it for storing program files and data just like an ordinary 3-inch disc. It is not just for helping you transfer data to a PC although that is obviously helpful, and

another advantage is that, because of the bulk of the new 3.5-inch disc drive PCWs, you will soon find that most PCW software will soon be available in 3.5-inch disc format.

3.5 times two

Dr Denton seeks an easy way to copy 3-inch to 3.5-inch (September page 78).

The answer is on page 37 - get the external switchable 3.5-inch drive from Silicon City. I fitted mine with no difficulty; it just involves some unplugging of connectors, and it works quietly and efficiently.

So now I can use either the inbuilt three or the external 3.5-inch B drive at any time, transfer files between them using the M drive as a temporary buffer, and as a bonus can also transfer ASCII text files to my PC.

I'm surprised you don't emphasise this easy option in articles about 3.5-inch drives. Silicon City are an excellent firm to deal with - and I hope they come up with the 3.5-inch A drive option soon (see August page 7).

E Salusbury

Clwyd

I would like to react on your article about a 3.5-inch internal disc drive for a PCW 8512 in the August issue 59 of your magazine: why have you not considered to connect a third external disc-drive to an already twin drive PCW 8512 instead of disconnecting and removing the B drive from the PCW 8512. This seems to me more logical in terms of efficiency and also in the light of the question of Dr M J Denton in issue 60 on page 78 on how to copy his 3-inch B discs to the 3.5-inch discs. I myself was very eager to know about this third drive, so it was a little of a disappointment to read nothing of this in your article, but perhaps you are considering an in-depth review on the dual drive A: a dual action drive A or B 3.5-inch disc drive as offered by

PINBOARD (page 32 of issue 60) and of which you have mentioned on the News Plus pages of issue 58 (double dutch)?

Fons Toorop
The Netherlands

8000 Plus: Looks like we will have a lot of correspondence about fitting 3.5-inch disc drives over the next few months.

Certainly it is possible to either replace an internal drive with a 3.5-inch disc drive or, if you prefer, to add an external drive that can be switchable with your current B: drive.

But it is also true that the announcement of new 3.5-inch disc drive PCWs will cause a flurry of activity amongst peripheral manufacturers.

We know for a fact that Silicon City are working on a set up that will allow you to load up and read and write to low density, (8000 series A:drive discs), high density and 3.5-inch discs - all from two internal drives. Watch this space for further developments.

Bubble trouble

As a semi-regular reader of your excellent magazine, I wonder if you could help me with some advice.

I have a 9512, but decided to buy a new printer which would do graphics, I chose the Canon Bubble Jet.

It works, but I still can't get graphics. When I load CP/M, I get 'Daisy Wheel - Active', but when I change the line, it says 'Matrix - No Printer'. I would have thought Bubble Jet would have worked on the same principle as Dot Matrix.

I was thinking of buying Micro Design 2, but I don't know if this will work with my printer?

Robert Hosie
Glasgow

8000 Plus: It is rather difficult to say how to get round your problem without knowing what graphics programs you

are using. I'm afraid the bubble jets don't normally work just like a dot matrix unless yours has an Epson emulation. You probably need a specific printer driver to run it successfully.

The good news is, however, that MicroDesign 2 does work with a bubble jet printer and, in the latest editions, there is also a special bubble jet option in the printer menu.

Write choice?

A few months ago, I purchased a PCW 9512 with one purpose in mind. For around three years now, I have been writing short stories, and my previous computer (a Spectrum+3) simply did not have the memory or functions I needed.

So, I bought a 9512. From the start, I have enjoyed using it, and the manual has proved to be helpful and (surprisingly) readable. I then started to look for magazines which were devoted to the PCW range. Two days later, I bought my first copy of "8000 Plus".

However, one thing has surprised me. I have so far bought and read two issues of the magazine, and there has only been one article on writing. As the PCW is primarily a word processor, I would have thought that more (if not all) of your magazine would have been more concerned with the art of writing, but this does not seem to be the case.

I know that I am not the only author who reads "8000 Plus" and I feel sure that more writer-oriented features (such as the most helpful article by Steve Copeland in issue 59) would prove to be popular and helpful. I have certainly found Mr Copeland's feature helpful, as it has helped me to produce manuscripts which are more satisfying in appearance.

So, would it be possible to produce a few more features for authors? I am not asking you to devote all of every issue to the subject; perhaps just one feature every month (even bi-monthly would do).

Finally, I wish to thank you for your excellent magazine. It certainly puts all of the publications I used to read for my Spectrum to shame. Mind you, the 9512 is also infinitely superior to Sir Clive's ageing box of tricks!

Peter Lee
Manchester

8000 Plus - Many thanks for your kind words. Our problem is that although we do have a large number of writers in our readership (who we try to keep happy with regular articles on writing) we need to remember that it is also a first rate computer as well.

A large number of our readers are people trying to get to grips with the day-to-day problems of using the PCW as a computer. Even the writers who bought their PCW purely for word processing often end up as enthusiastic computer buffs.

We try to keep the balance right but please tell us if you don't think we are.

Head case

I am hoping you can help me with a small query which I have regarding the maintenance of disc drives. I have been reading your magazine for about two years now and you have always carried advertisements from various companies for disc drive head cleaning kits. As I obviously want to keep my machine in good working order I decided to purchase such a kit some time ago. Having subsequently used it a couple of times you can imagine my concern when I read an article stating that using these kits can in fact damage the drives.

Since reading this I have opted not to attempt to clean the drive head as I am loathe to do anything which may cause damage. I have had my PCW 9512 for just over two years now and would like to know if perhaps I am worrying unnecessarily and should return to using these head cleaning kits.

Many thanks for a truly excellent publication which I - and I'm sure many others - find to be such a great help in our PCWing efforts.

Peter Hooper
London

8000 Plus: Certainly when the PCW came on the market it was thought that there was no real need to clean disc heads. Perhaps now that some of the first machines are getting to be rather old there might be a general desire to clean out the grime, but I wouldn't worry too much - until you regularly find data reading errors.

DTP blues

I was recently shown a friend's DTP system. I was very impressed. He uses a small Apple computer with lots of add-ons. He could make the print go into two or three columns, leave spaces for photographs, and call up different fonts and sizes for titles - he could even do double page spreads.

I have an Amstrad PCW 9512 with a daisy wheel printer. What are the chances, and rough costs, of being able to do this on it? I believe the printer I have now would not be suitable.

Amina Chatwin
Cheltenham

8000 Plus - Certainly a program like MicroDesign 2 (£62) can do all the things that you describe - except double page spreads. But as your friend would probably have an A4 printer he would have to have printed out the two pages of a spread separately anyway.

You can get a wide variety of type sizes, although to get truly scalable fonts you really need a far more powerful computer.

It is also true that your daisy wheel printer won't print graphics. What you would have to spend to get up and running depends on what quality you

need. A £160 9-pin dot matrix printer would give you a reasonable standard but you could spend double that on a 24-pin dot matrix or a ink jet printer. And you could shell out between £600 and £1,000 for a decent laser printer.

Doctor, doctor!

I've written to Clare Rayner and Dr Anthony Clare. I've spoken to my homeopath about the problem, and she referred me to a counsellor she knows, but all to no avail. I hope you understand, it's all rather embarrassing.

The problem started sometime last year when I started to subscribe to 8000 Plus. Oh, don't worry, it's not the purple printing on the blue background that's the problem. Nor the non-appearance of promised reviews - I really do understand your problems, I've been there - although if you ever want to talk about it, I'm here.

No, the problem is... it's rather difficult, I'm sorry... the problem is, it's the Soft Options disc. Or perhaps it's not. Perhaps it's CP/M - what is CP/M?

You see, I've got the new instructions after phoning Sue Taylor, but when I get to part 7, all I get in reply is READ.ME?, so I can't go any further. I even spoke to Tim Smith about the original instructions when I first received the disc (because I couldn't understand a word), and he couldn't make out what the problem was, and he sent me another disc because he thought there may have been something wrong with mine.

Can you help? Can you do some articles on CP/M for total ignoramuses like me? Is there a What's CP/M? club in my area? When are we going to get an article entitled Soft Option - The HARD Option?

Basically, I think you're going to say that the problem is in my head, but really, you're my last hope. It's no use referring me to the manual - the last time I did that it made me feel so ill that I didn't get rid of the frown for a week.

Phil Grimshaw

8000 Plus: Well... we suspect that you are typing the words READ.ME at the C> prompt which means that CP/M looks for a program called READ.ME.

What you should do is type the words TYPE READ.ME. Then CP/M will use its TYPE utility to display the text file called READ.ME.

And don't despair on CP/M. In the new year we will be doing something very interesting on this very subject.

Brain rave

Thank you very much for printing the letter (Postscript, Issue 59) about how BrainStorm helps its users. Your response to the writer was to suggest that we probably can't always provide this

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kind of service. The fact is that we can. Our way of publishing software is to produce an easy to understand program and manual. And, after eight years on the market, we know the program is bug-free. Astonishingly, the CP/M version always has been.

Our pricing is at a level where, as you rightly point out, we just couldn't afford to give everyone the kind of comprehensive help we gave your reader. We do, however, provide it to everyone who needs it. Fortunately for us, not very many do.

As you can tell from our address, we're not some vast anonymous conglomerate. We are David and Sylvia Tebbutt, plus a few friends who help out with the programming from time to time. We run BrainStorm more as a hobby than as a business. Customer satisfaction (and something like 8,000 people have bought BrainStorm) comes much higher on our list of priorities than anything else, including money.

If you thought BrainStorm was a bit odd in its approach, perhaps this letter has helped you understand why.

David Tebbutt
BrainStorm Software

8000 Plus: All we can say is "Keep up the good work" and we hope that you don't have to spend that amount of time with all 8,000 users.

Book look

I read with interest the letter from Mr Ned Potter of Dorking on page 91 of the September edition of 8000 Plus, as I have exactly the same problem. I thought, now to find out how to use the disc supplied with the 8000 Plus Guide to MicroDesign (I do have MicroDesign 2). I wonder what I am missing as I can find no instructions on this page to enable me to see the contents of the disc. Please can you advise me.

M S Ballanger
Reading

8000 Plus: What you have on the MicroDesign book example's disc is a collection of small picture files (ending with .CUT), page file and larger graphics files (ending .MDA) and text files (.TXT) that can be used inside the MicroDesign 2 program.

As with any disc you can easily find a complete list of what is on it by loading the disc in the drive when you are in CP/M (at the A> prompt - before you load MicroDesign 2) and then typing in DIR [RETURN] as usual.

However if you actually want to look at the picture in a .CUT graphics file in the Design section, for instance, you will need to load up MicroDesign 2 and follow the instructions as per page 35 in the book.

When you do that the program will show you a list of all the .CUT files on the disc so that you can choose the one

you want. The same technique works with .MDA files in the Layout section and with the text files when you are loading them into the Text Editor.

Best buy

As a newcomer to BASIC I've been having a great deal of fun lately typing in the series of short program listings that you have been running in your "beginners" section.

I particularly liked the program COSTCOMP by M J Fulcher. Using this I decided to run a quick costing comparison of 8000 Plus against its main competitor and came up with the following interesting results:

How many units in pack A? 74 (number of pages in mag)

Price of pack A? £1.80 (cover price)

How many units in pack B? 82

Price of pack B? £1.95

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Needless to say, pack B is 8000 Plus and pack A is... (ssh! we all know who).

It just goes to show that 8000 Plus is still the best value around, and we even get a cheery 'hello' from Sophie into the bargain. What could be nicer!

Terence J Beckwith
Norwich

8000 Plus: Just goes to prove how useful and accurate our listings are (when the gremlins are on holiday, that is...) Thank you for your letter, Terence.

Priorities, please

Would it be asking too much of 8000 Plus in the future to include the enter/renew subscription on a page where its removal would not be a major inconvenience to the subscriber?

In your fifth birthday edition, September 1991, you ask your readers to remove the coupon from page 46. Unfortunately this also means cutting out part of the annual index on page 45. Frankly I can think of no worse location for this coupon - particularly bearing in mind the September index.

Really, in a magazine which needs to be filed for future reference this is not good enough. I need now to write yet another letter - in lieu of the coupon - to your subscriptions department.

P A Johnston
Chepstow

8000 Plus: That's just the trouble, you see - everything in 8000 Plus is just too good to lose. Seriously, however, we do take your point. It was not the best place to put it and we promise to be much more careful in future.

Soft Option shortage

In the September issue you told Michael Margolis of Merseyside that the Soft Options disc was still available from your Somerton office. They say that it is no longer available. Repeating the above correspondent's question - where can I get a copy, please?

N H Solomons
Kidderminster

8000 Plus: There actually are a very small number of copies once again available at Somerton (we found some in the office) but rush to order now because stocks definitely won't last.

If you are unlucky, we are assured, by the powers that be, that they are considering a re-issue some time in the future. So watch this space!

Some friend

In issue 57 (June 1991) on page 75 of Tipoffs I noticed a reference to a book entitled "The Amstrad Companion" under the tipoff entitled "listing list" from H Loosemore. Where can I get this book and for how much?

Conor Lennon
Dublin

8000 Plus: We don't think that the Amstrad Companion is still in print, I'm afraid. It was written by David Lawrence and Mark England and was published by Sunshine Books - ISBN no 0-946408-95-5, if that's any help.

Memory quest

Since I retired I have used my PCW 8512 extensively in my role as secretary and/or treasurer to various church and charitable organisations. It has been invaluable for both correspondence (LocoScript 2) and for several programs written by me in BASIC.

The only shortcoming of the PCW 8512 seems to be the very small internal memory in basic (31597 bytes) and I have scanned the pages of 8000 Plus for many months hoping to see offered for sale an add-on which would give me, say, 100K, without success.

Have I missed something? Or is what I want technically impossible?

Norman Godsmark

Witham

8000 Plus: The problem is not so much with the machine as with Mallard BASIC. The 31K is all it can use. The only way round it is by using overlays - a method of splitting your program up into sections that can be loaded up into working memory when required.

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Competition

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Many industry cynics have questioned the ability of the PCW to perform capably as a graphics and desktop publishing tool. However, you only have to look at the work which can be output from programs such as MicroDesign 2 and Stop Press, to realise that the PCW is as adept as its infamous elder brother at coming up with the goods.

One reason why the PCW is able to keep up the pace is down to mice. Not, nor small furry things with pink tails, but a very convenient little add-on which brings a new flexibility to your DTP endeavours. For those not yet in the know, mice and DTP go together like horse and carriage – as the song almost goes! Instead of using the cursor keys to navigate the design screen of your favourite DTP program, the mouse enables you to 'draw' straight on to your screen, as an artist would use a brush. It also speeds up the operation considerably – a factor which is sure to please all but the most patient of users.

Until now, the mouse has been attached to the PCW via an interface which slots on to the expansion port at the back of your machine. This, on the face of it, is perfectly acceptable; it certainly does not affect the performance of

the add-on to have it located thus. However, problems begin to arise when you want to add other items to your machine; you end up with what is commonly known as piggy-backing, where a cluster of extras teeter precariously from the expansion port, all set to tumble off at the merest whisper of a passing breeze. You are also presented with the problem of prioritising; do you really need your Rampac for this operation, or would you prefer to have a clip on accessory, such as Sprinter, say, to boost the speed of your machine?

Creative Technology have addressed and conquered the problem with (characteristic) consummate ease, with the latest in a run of quality DTP products. KeyMouse, their new venture, represents a major departure from the usual way of doing things when it comes to matters PCW.

The name of the mouse may give some clues as to how it differs from the rest. KeyMouse plugs into the PCW keyboard. Now, before the more technically aware among you start scratching your heads and wondering about the logistics of such a situation, rest assured. There is absolutely no drilling or dismantling involved here. What actually happens is that KeyMouse comes complete with its own mini-

interface. Plug the mouse into one of the sockets on the interface, the keyboard into the other, and slot the interface lead into the usual home of the keyboard plug on your PCW. Confused? No need to be. Setting KeyMouse up really couldn't be simpler, and it frees that all important space at the back of your PCW for anything which you choose to put there.

KeyMouse is specifically designed for use with MicroDesign 2, and CT's handscanning package, ProScan. So, if you do own any other kind of DTP package, this one is not for you. However, for those equipped with either of the above, the news is good. We're giving away one KeyMouse to the lucky winner who can spot the odd one out from the following list:

- a) KeyMouse b) Stop Press
- c) ProScan d) MicroDesign.

Simple! All you have to do is identify the imposter, tell us why it is the odd one out, and pop your answer on a postcard. Despatch it to KeyMouse Competition, 8000 Plus, 29 Monmouth Street, Bath BA1 2BW. The first entry to be drawn from the 8000 Plus hat after the closing date of 25th October wins their very own KeyMouse. Good Luck!

Next month

New PCWs

As you'll no doubt have guessed from this month's cover and news feature, the long-awaited new PCWs have finally arrived. There are two machines in the range, the 9256 and the 9512 Plus, and next month we'll be bringing you a full review of the pair – in true 8000 Plus, no stone unturned style! So, if you want to find out what all the fuss is about for yourself, don't miss our November issue!

Gem of an idea

Back in September, we were pleased to be able to bring you news of the brand new budget hard disc from Ciritech, Gem. In our November issue, we'll be taking a detailed look at the new product. Does a budget price involve a compromise in quality? How does Gem differ from its nearest rivals? And will it really revolutionise your working practices? The answers to all these questions can only be found in 8000 Plus – next month.

Clean Technique

The release of the first 'alternative' PCW keyboard, the Teqniche PCW102, has been met with incredible enthusiasm by nimble-fingered typists everywhere. But, after six months of use, some of you may be tiring your board out a little too much! November's step by step, fully illustrated guide shows you how to give your Teqniche a thorough service. We'll be taking the 8000 Plus Teqniche to pieces, and giving it a good wash and brush up. Why not invest a little time, patience and understanding and do the same for your own? See you next month!

The November issue of

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Re~ink

Simple, easy re-inking at home!

One can will Re~ink up to 30 PCW ribbons or top-up 100+!!

FABRIC
RIBBON
RE-INKING
FORMULA

a future-friendly
product from
OFFICE-21



- ✓ Completely ozone-friendly
- ✓ Contains NO propellants or harmful solvents
- ✓ Recyclable aluminium can
- ✓ Superb quality dense black ink

All fabric ribbons have press-on tops... Just lift off the top, spray on a teaspoonful or two of ink and leave to dry.
For CLEAN, CLEAR, BLACK PRINT... again and again and again...

only
£12.95
inc vat

SOFT SPOT

** PLEASE STATE WHICH PCW YOU HAVE WHEN ORDERING SOFTWARE **

Cracker II Turbo Spreadsheet	£36.95	MAP Stock Control	£19.95
Cracker II Turbo PLUS	£39.95	MasterFile 8000	£45.95
dBase II database	£49.95	MicroDesign 2	£49.95
Home Entertainment Centre	£20.95	MicroDesign 2 + Mouse & I/F	£89.95
Knife Plus	£18.95	Mini Office Professional	£29.95
LocoScript 2	£27.95	Money Manager PCW	£67.95
LocoSpell 2	£22.95	Professional Adventure Writer	£24.95
LocoScript & Spell Combo	£37.95	Protex Word Processor	£59.95
LocoFile (8256/8512)	£32.95	Derek Rogers Total Accounting	£79.95
LocoFile (9512)	£32.95	Rogers Demonstration Disk	£4.95
LocoMail (8256/8512)	£28.95	(Refundable on return if ordering full version)	
LocoFile & Mail Combo	£47.95	Sage Payroll	£59.95
LocoFile & Script 2 Combo	£42.95	Sage Popular Accounts	£82.95
LocoFont Combo (9-pin)	£27.95	Sage Popular Accounts Plus	£139.95
LocoPrinter 24 Combo	£27.95	Stockmarket 2	£44.95
Loco Printer Support Pack	£27.95		

* Mouse & Interface only £19.95 * Mouse mat only £4.95
* CPS 8256 Serial/Parallel Printer interface only £59.95

NO VAT INCREASE WITH CASPELL
(We've absorbed the difference)

ALL OUR PRICES INCLUDE VAT
same day despatch + 1st class delivery

ALL ITEMS FREE DELIVERY except Paper & Labels

★ HOW TO ORDER ★

order by FREEPOST

CASPELL COMPUTER

Dept 8K

FREEPOST

Poole BH15 2BR

call at SHOP or WAREHOUSE

See top for addresses

order by PHONE

0202 - 666155

4 - LINES * 24 hrs

order by FAX

0202 - 668208

24 hrs

PAYMENT

CHEQUES - made payable to CASPELL COMPUTER

VISA and ACCESS

POSTAL ORDERS

DELIVERY

UK MAINLAND

PAPER

(except Personal Organiser)

(any quantity)

£5.00

LABELS

(any quantity)

£2.50

EVERYTHING

(any quantity)

£ FREE

3/5 DAY SERVICE:

NEXT DAY SERVICE:

(orders placed by 3:00pm)

OVERSEAS: (optional insurance)

Surface shipping of cost

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4 essential packages from NewStar

New

Cracker 2 *turbo plus*

Now Supports 3 times the available worksheet!

Cracker 2 *turbo plus* is the powerful, user friendly graphics spreadsheet specially written for the PCW 8256, 8512 and 9512. Fast and easy to use, with a wide variety of graph styles, why settle for a text-only spreadsheet when the best costs less?

Cracker 2 *turbo plus* is capable of checking entries for error as data is keyed into a work sheet. Arithmetic, logic and syntax are all checked before being accepted.

Once a worksheet has been created Cracker 2 *turbo plus* can translate these figures into graphs, in high resolution, either on the screen or to an Epson compatible printer. Bar graphs, pie charts, line graphs, logarithmic, scatter and hi lographs can all



Price:
£42.61
+VAT

be produced.

Built-in functions are available for doing statistical analysis, complex logic and higher mathematics. Special functions for cashflow calculations and tax assessments are also provided.

- Cracker 2 *turbo plus* supports 52 columns by 255 rows
- Makes full use of the PCW 32 line screen
- Extensive graphing capabilities
- On-line help and error checking

Touch'n'Go

Typing Tutorial

24 Hours to Keyboard mastery.

Yes, in just 24 hours, with a little concentrated effort you can be touch typing at 40 words per minute, with an alphabetic accuracy of 95%, and a numeric accuracy of 100%.

Consists of a series of 62 self paced lessons, which the program will not allow you to advance through until you have reached a certain degree of competence.

Touch'n'Go displays all your mistakes and also the speed and accuracy with which you complete each lesson. You can keep log files of progress and resume at any time, just where you left off.

Price: £21.69 +VAT

C-STAM

File Transfer System

The simple and efficient method of transferring data between a PCW to a PC or PPC - and back again!

Transfer files between the serial port of a PCW and any IBM compatible PC using C-STAM. Ideal for anyone upgrading to a PC, or for offices where both types of machine are in use.

C-STAM will transfer any ASCII files for use on all your favourite programs — for example LocoScript PCW to WordPerfect and Cracker 2 *turbo plus* to Lotus 123 and vice versa!

Fast and simple to set up and use, C-STAM comes complete with 3", 3 1/2" and 5 1/4" disks, connecting cable and full instructions for use.

Price: £39.95 +VAT Serial Interface not included.

NewWord 2 PCW

The classic WordStar look-alike wordprocessor for the PCW.

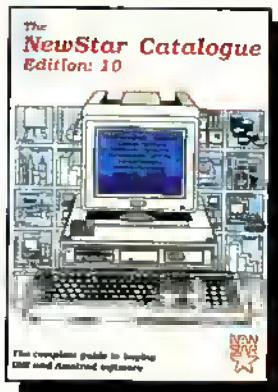
NewWord 2 operates under the CPM operating system, and uses the universally recognised codes of WordStar. So if you have already learned how to use WordStar, you will be immediately up and running with NewWord 2 PCW, with virtually no additional learning required.

Mailmerge facilities use standard files that can be exported from most databases, and a fast and versatile spelling corrector proof reads your documents, prompting you with suggested spellings if you need them. There's even a set of dictionary manipulation utilities to help with anagram and crossword puzzles!

Price: £60.83 +VAT

NewStar Catalogue

Write or Phone for our free 64 page catalogue of IBM and PCW software... FREE - Just ask!



- Special section devoted to PCW users
- Packed with useful tips and information
- More products
- Business and educational software

The PCW section covers, Accounts, Wordprocessing, Database and Graphics.

And includes - the full Locomotive range, Micro-design 2, Masterfile 8000, Money Manager, Sage, MAP, dBASE II, Cracker 2, NewWord 2, the list goes on and on...



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